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YALE MEDICAL DISSERTATIONS

1861

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The subject of the present Thesis

Asiatic Cholera.

A case will first be cited & a general statement of the nature & treatment of the disease will follow.

The case is the more interesting because it occurred in Asia itself, because the writer was himself the patient, & because recovery took place from the collapsed stage, after he had been given up by his attendants.

It was near midsummer of the second year of my residence in Syria. This, by the way, is acknowledged to be the most trying of any year to the natives of the temperate zones who reside in the tropics. For, while, the first year, he retains something of the vim imparted by his bracing native air, the second finds him shuffled off

his protection, & however good his constitution & guarded his regimen he is sure to suffer more or less from the debilitating influence of the climate. After the second year he is measurably acclimated. Not so with the mere traveller. He visits the country in the most healthy season, early summer, & remains only a few days or weeks, not at the right season nor long enough to suffer from the enervating power of the heat.

It was not a time of epidemic, but sporadic cases of cholera occasionally occur.

The day previous had been one of unusual bodily & mental exertion.

At about two o'clock in the morning I was attacked with diarrhoea. The first dejection, tho' copious & watery, excited little attention. The second, however, which followed soon after, being accompanied by vomiting, naturally alarmed me. Having seen some cases of Asiatic

cholera in a previous epidemic, I readily recognized the disease. Cathartic & emetic of a rice water fluid, both simultaneous alternately, soon followed. No urine, however, was voided.

I should, perhaps, state, by way of explanation that I was now single, boarding with an American gentleman who had resided in the country half-a-dozen years, part of the time in Aleppo, during several epidemics of the cholera, & that my room was in the second story of his house.

I at once tried to call my servant, who slept in the hall below, but failed to wake him. To go down stairs was out of the question, from weakness pain & the frequency & persistence of the evacuations. I could do nothing, therefore, but wait for the morning. Day broke about 3. The sun rose at 4. At 5 my host came up stairs to his study, an adjoining room & looked in upon me. Tho' not anticipating it, he at once dis-

agnosed the disease, procured & administered medicine & sent for a physician. The medicine was rejected almost immediately, but the dose was at once repeated. And so throughout the attack, as often as vomiting occurred, a new dose was administered.

As the whole surface of my body was cold, he ordered water to be heated, with which bottles were filled, & in which flannels were wrung out. With these I was surrounded & envelloped.

Cramps, especially of the muscles of the thigh & calf of the leg soon supervened; which were partially relieved by jibbing; two stout men being constantly employed on either leg. My voice had now become husky & faint, my hearing much impaired, & my sight had begun to fail. I indistinctly heard my attendants remarking on my cadaverous appearance, & now recall the words: Nothing

more can be done!" My sensations were those of excessive exhaustion of body & utter indifference of mind, while I was perfectly conscious & rational when spoken to.

It was now seven o'clock. The physician had not arrived. The crisis had come. Providentially, the vomiting and purging gradually ceased; the cramps became less frequent & severe, the voice more natural, & the skin warmer & moister. At this stage the physician came, an Italian, long resident in the Levant, pronounced my disease Asiatic cholera, gave a favorable prognosis, approved of the course already pursued, & left directions for the future.

As convalescence began to be established, I had an intense thirst, and found the most refreshing drinks to be the "sherbet" of the country, a weak lemonade, & soda water cooled with snow brought by night from the top of Lebanon

Note A., p. 6. The history of the disease & its spread over the world in different Epidemics would, itself furnish matter for a separate thesis.

which near Beirut, where I then resided, rises to the height of 7000 feet. This was all the nourishment that I craved for a day or two, my appetite for solid food not returning immediately.

In the course of four or five days I was up & about, tho' quite weak; & I did not recover full strength till after a month's residence & easy travel on the mountain.

Nature of Asiatic Cholera.

About its Contagiousness there is a diversity of opinion, some maintaining that it is contagious, & others that it is portable, tho' not, strictly speaking, contagious. Its epidemic nature has been abundantly shown from the year 1811 down, throughout the torrid & temperate zones generally, & at the expense of millions of lives. [Note A]

The specific poison of Cholera [illegible]

to irritate the stomach & bowels, producing great general depression & a tendency to exosomose of the watery portions of the blood.

This poison is, undoubtedly, the ~~[illegible]~~ predisposing cause of the disease; but, like most of its kind, it is too subtle for our alembics.

The exciting causes may be generally stated as all depressing & irritating agents. In different localities different specialties, of course, predominate. The heat of summer, fatigue, excess of any kind, especially intemperance in food & drink. In Syria, perhaps, as ~~fruitful~~ prolific a cause as any is the eating of unripe & raw fruit & vegetables, — the natives, by a strange infatuation, persisting in eating them even after attacked by the disease!

The Symptoms, most of which have been mentioned in connection with the cause cited, are, — in the premonitory stage, diarrhoea, heaviness of the

head & nausea, changing suddenly, in the stage of attack, to violent, but comparatively easy & painless emesis & catharsis of a turbid, watery fluid. This fluid contains no bile; — a fact suggesting the impropriety of the name Cholera, — a word derived from χολή, bile & ῥέω, to flow; analogous to the derivation of the Latin lucus, a grove (& a shady or dark place) from lux, light! The urine is suppressed.

As the stage of collapse comes on, painful & violent spasms of the muscles of the leg & abdomen occur, — the pulse becomes quick & small, & often deficient at the wrist. — the tongue is of a leaden color, the surface & extremities of the body cold & blue, — breathing is difficult & the senses impaired.

If the patient is to survive, the unfavorable symptoms gradually disappear & reaction is by degrees established.

If the case is to terminate [illegible]

Note B., p. 9.

A stage of reaction characterized by typhoid symptoms is mentioned as sometimes following the stage of collapse. In Asia, at least, this is generally wanting.

the patient becomes comatose & dies exhausted. [Note B.]

The average duration of the disease is from two to twelve hours.

The post-mortem shows the arteries to be empty & the veins filled with dark uncoagulable blood, deficient of its watery constituents. The intestinal canal is pale & injected in spots, from venous congestion. There are no signs of inflammation, but shreds of epithelium stripped from the intestinal mucous membrane, are frequently found. The bladder is empty & contracted on itself.

There is great diversity in the treatment of Asiatic Cholera, — the 'heroic' & the mild styles both having their champions. Bleeding & even emetics have been tried with doubtful success. Sir Lyon the two sheet-anchors of the native 'leeches' are bleeding, & the actual cautery. The powers of both have been

exhausted in this disease, & the patient also!

Externally heat should be applied to the whole surface. Cramps may be relieved by rubbing or the cautious administration of anaesthetics.

Internally Calomel, opium & acetate of lead have been most relied on. But no one course of treatment can be unvaryingly pursued. There is no specific remedy for the disease. Each case must be treated according to its symptoms.

The great aim from the first should be to check the fluid discharge. By perseveing efforts the disease may be thus often nipped in the bud.

The Recipe for internal administration now most generally used by Frank residents in Syria is the following:

℞ Camph. Pulv.
Lingib. [illegible] } ana ʒj
Morph. Sulph. gr vi

Note C., p. 11–

The characteristic suppression of the biliary secretion would indicate the administration of Mercury. It should undoubtedly sometimes be given with a view to its specific action on the liver, – but, the diarrhoea once checked, that organ will often, if not generally, resume its proper functions.

Tere simul optime.

Dose: pro re nata or 2 gr. every 15 minutes, till the evacuations are checked, or till 8 doses have been taken. Then 2 gr. [illegible] each evacuation; [if the evacuations occur oftener than once in twelve hours]

This Recipe has the historical & local interest of being an original prescription of a graduate of this Medical Institution, now dead; but for fifteen years a successful & esteemed physician in Syria. It was used in the case already cited. In repeated epidemics in several of the large cities of Turkey its excellence has been extensively shown.

The direction, however, insisted on by its author, is the persistent administration of the remedy, however often rejected. All will not be thrown up. Some will undoubtedly remain, & that may be the means of saving life. I verily believe that mine was thus saved. [Note C.]

Dec. 22d. '60. Edward Aiken.

Caution in the practice of Medicine

I have chosen this subject from a deep sense of its importance, when we remember the great variety of diseases, and in many cases the similarity of symptoms, the many complications, the great variety of remedies from which we are to choose, we cannot fail to see the necessity of exercising the utmost care and caution in our diagnosis and treatment, and I believe a disease had better be left to the powers of nature unaided than that we should aggravate it by misapplied remedies. This misapplication may be made by the young physician simply from the want of care, or by undue haste. thus those looking to him for succor being positively injured.

Who from the thought of this can fail to see, that if he is to practice medicine, that it is an art worth his best efforts? See that it is his solemn duty to pursue its study so thoroughly as

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in its practice to benefit mankind.

The student is apt to complain of the minute details of Professors in the different departments, not remembering that they know the necessity of minuteness in a science long practiced and taught by them.- If any doubt the necessity of minuteness of observation in this science let him briefly look at what it has done for the art, from the time it was first practiced in Egypt. We are not informed to what extent it was made an exclusive profession - we are told that the priests were often the physicians and it seems that their practice consisted in the employment of magical incantations and its efficacy was in proportion to the ignorance and superstition of the people. Successive ages have passed, and to day we can look back by the aid of the historian and view the progress of practical medicine as being in ratio with other arts, less satisfactorily so, perhaps from the nature of

the science and the difficulty of establishing facts by proof positive, but enough has been gained by the researches of devoted men to substantiate the above statement of medical progression. But when we remember the amount that has been written on the subject to attain the result, we can only explain it from the fact that many have given theire observations made without that minuteness so essential in this science, and from them formed facts. A learned professor has remarked 'that in medicine there are more false facts than false opinions'

I feel that if we would attain to any thing like satisfactory results in the practice of this art - or be useful in it, we must be willing to study minutely the cause of the disease we meet, its form and result - again the same amount of care is to be exercised in selecting and applying our remedies. And while the great Kingdoms of nature have rewarded the labors

of man and given us these remedies, they cannot in turn be judiciously applied without a corresponding amount of labor and investigation upon our part.

And we must not forget the great variety of circumstances that modify therapeutical indications, as age, sex, habit, climate, state of mind, professions, causes, state of the disease, acute or chronic. Surely if we give all these modifying circumstances their due amount of consideration we cannot hastily give our advice, and, proper moderation in doing this may save us from much after mortification, and, perhaps our patients from much distress.

The fastness of the age has given us no faster means of acquiring experience, and no other method is given to take the place of careful and diligent observation, true much has been added to better instruct us in the elementary

branches of medicine. And it is in view of this fact that I feel the importance of caution, that our practice may be in ratio with the improved teachings.

And while we adhere to many of the general principles of ancient medicine in treating disease. Yet, the modern physician goes farther. He will study the cause of increased or decreased energy in the nervous or vascular system, he will investigate the laws of sympathy, of relation, of conversion, and in any disease presented to him he is to look for and detect if there be any change produced and if so. Judge from this what further is threatened.

And while we try to relieve pain, we are carefully to seek for the diseased action of which it is a symptom and remove it, that a permanent cure may be effected, an important part of practice too often neglected, that is symptoms alone

are too often treated, true in many cases when they are removed the disease is at an end. But it is often of the utmost importance to discover the primary disordered action, and always more satisfactory an extreme case, but showing the necessity of this - would be where we directed our treatment to remove prostration in fever by other means than that of removing the fever.

~~Structural~~ We may view structural change and never should forget that it is a result of disordered function, and our aim should be to remedie this, but before we can do this we are to find its cause, and here again we shall find there is a demand for careful and minute investigation, when we remember what a variety of agents may act as an exciting cause, it may be chemical, mechanical, internal or external, operating within the body, as in obstructions of the intestines by hardened feces - thus causing

irritation and inflammation.

We are familiar with many mechanical causes of disease, as stone in the bladder, hardness of the contents of the stomach and to such an extent as to cause serious disease of the organ.

And in fact the variety of external and internal causes that interfere with the mechanism of the body are almost endless. And, when we add to them the class of agents not cognizable, we surely have a formable list, and indeed it may oftentimes be impossible to refer the disease back to any exciting cause, and often the functional disorder will be so great that the disordered action cannot be entirely suppressed, and here our efforts will be limited to its moderation, and by endeavouring to conduct it to a favorable termination, which we often can do by a careful and judicious use of our resources.

And here I would say—

that we should not forget that we often can do much to relieve. aside from the use of drugs, we may remove many morbid states of the body - by discovering and removing their cause - conditions which had and would resist all remedies, - the cause may be errors in diet - want of exercise, occupation, &c which it will be in our power to correct or advise their correction, and it often will be as necessary to inquire into these conditions, as to feel of the pulse or examine the body, for it may be that the latter cannot be benefited under the existing state of things; and in this point we are reminded of the need of caution -

While we are pleased to remember that we have curable diseases, we must not forget that we have some self-limited, and those that are incurable, of the first we have examples in many inflammatory diseases, which we are often able to subdue by depletion, and the

general antiphlogistic treatment, and then some diseases for which we have specific remedies as sulpher in scabies, mercury in Syphilis.

The self-limited diseases, which are those that receive limits from their own nature, and after becoming established in the System will have what is termed their run, examples of these are typhous and typhoid fever, small-Pox, hooping-cough and measles, we may of course do in these diseases much for the comfort of the patient gaurding against complications, and properly treating them when they arise, but here we need to be cautious not to interfere too much, but let our treatment be expectant, waiting for the operations of nature.

Nature in disease was observed by him who acquired the title of father of medicine, and while perhaps at that time not knowing the diseases thus limited, might have been the cause of treatment too inactive in

many cases, yet this would be better than an opposite extreme.

We now have to speak of diseases incurable, and these have been termed and recognized as the opprobrium medicorum. This class is numerous and in it we find, phthisis, dropsy, epilepsy, paralysis, many internal morbid degenerations, in which organs are disabled, functions destroyed. Here medicine has its resources, it affords us means of relief, by which the lifes of many can be made comfortable, that would be miserble without its aid, and, while we regret that we cannot effect a cure, we can have the satisfaction of feeling that we are useful, and say of the art, ——,

"Its a science that with timely care combined
Becomes the faithful friend of human kind,
Reverses oft man's miserble fate,
And serves his cureless ills to mitigate"

It is only by study and observation that we can understand the great principles

which should govern our practice, only by the greatest care can these principles be cor-
-rectly applied.

There is a misunderstanding generally of what the art of medicine is. to most it implys a cure of all diseases, and this is the cause of so much dissatis-
-faction, of such unreasonble[illegible] upon the physician who, in many cases may have given hopes of a cure when alleviation only was possible.

But this is an evil fast being remedied by the physicians of the pres-
-ent day, who, while they would not with-
-hold from their patients the benefit of hope, will not bring upon themselves and the art a defeat, where they had promised a cure.

The time has come when correct medical opinions are sought for. shall we labor by study, by minute, and careful investigation, and thus be able

ta give them?

Upon the aunswer of this question depends our success.

Medical men can now give their aduice without medicine, and we often hear persons express their choice for a physician upon the ground that he does not give much medicine, and this by those who have no loss of faith in the discriminate use of drugs, thus showing their confidence in the wisdom of that medical man who knows when they should be withheld and when exhibited.

With all the appeals of Quackery to the public it is estimated that three fourths of the familes of New England are in the hands of the regular practitioners, thus showing that the majority appreciate the efforts of those who practice their art intelligently who study to alliviate and relieve their patrons.

Without doubt Quackery in some form will always exist and successful to so far as the duping of its victims is concerned. We are told there is a demand for it thus, it springs up in one form which soon falls and gives way to another.

But I would far rather be unsuccessful in the legitimate practice of medicine, than practice a de-ceit though I might rob my victims of an hundred fortunes.

Who that has any manly feeling can consent to impose upon the credulous sick who apply to him for aid?

I believe a strong and earnest de-sire upon our part to be useful in our profession will be a great aid to our success. Fail we may to secure to ourselves wealth or fame, but above all we may be sure of and this is above price, it is an approving conscience.

With the resources of information at our command, with the teachings of those who have detailed their experience to us, in the improved light of anatomy and physiology, we feel may with care, caution and study, be useful to mankind, and no discredit to the profession, a profession that contains men of the highest order of intellect, men of noble souls, who are devoting their talents and lifes to a noble purpose

Benj. T. Allen

Jaundice.

by

Jas. A. Bigelow.

Jaundice.

Jaundice is a disease of the liver or biliary ducts, characterized by a yellow, or yellowish, color of the skin, the conjunctiva, the urine, and various other secretions. It is not a common disease of childhood, but occurs more frequently after the age of puberty, and more often in males than in females.

It sometimes appears epidemically as an idiopathic disease, and then is most common in children. There is also a variety of this disorder affecting new-born infants, the "Icterus Neonatorum" of Authors, coming on a few days after birth and usually requiring very little treatment.

Symptoms. The disease is commonly preceded by indications of a

disordered condition of the digestive organs generally; such as diminution or loss of appetite, nausea, and sometimes vomiting, flatulence, costiveness, and a peculiar sinking sensation in the epigastrium. There is also great depression of spirits; the patients' disposition becoming sour and morose, and a languid state of the circulation, manifested by a slow and weak pulse;— or there may be a tenderness of the epigastric region on pressure, slight chills alternating with flushes of heat, and a turbid state of the urine, which deposites a copious sediment.

After a greater or less length of time, there is often an intolerable itching over the whole surface of the body, and all of the symptoms become aggravated. The stools, which were at first of a light yellow,

have become of a drab or clay color; the bile appears in the urine giving it at times a blackish hue, but the characteristic tinge can be made to appear by diluting it with water; the tongue has a yellowish fur and there is a bitter taste in the mouth; the Conjunctiva at length becomes of a bright yellow color, which soon spreads to the skin of the forehead and lips, and over the remainder of the surface of the body. The color is most striking where the skin is thinnest and in certain cases is the first observable symptom. The patient is disposed to drowsiness, and complains of headache. The skin is dry and husky, and if the disease is not checked by appropriate treatment the patient emaciates, night sweats ensue,

there is much restlessness, dropsical effusions take place, the respiration becomes difficult, hemorrhage from the nose or bowels occurs; and finally low muttering delir-
-ium, with picking at the bed-
-clothes, or coma, announces the near approach of dissolution.
In a majority of cases the bowels are costive, but sometimes there is diar-
-rhœa owing to an inflamed state of the duodenum; and there may be cases in which there is a deep color of the skin, and yet the stools are not entirely untinged by the bile, — for the diseased condition may be such that only a portion of the biliary ducts are obstructed, a part still continuing to discharge bile into the small intestines.
The color of the skin, which at

first is of a light lemon yellow, becomes, if the disease continues long, of a deep orange, and differs on different parts of the person so as to give somewhat of a mottled appearance. In some cases the skin is of a greenish hue, and even almost black,— Such cases being usually connected with incurable organic disease of the liver.

The various secretions of the body became tinged by the coloring principle of the bile, although the milk is very rarely. To some persons every object has a yellowish tinge, owing to the deposition of this matter in the humors of the Eye. The perspiration of the patient is often colored, and communicates its hue to the clothing. This yellow color is owing in many cases to an obstruction to the passage of the bile, through the liver, and

its consequent absorption, and deposition in the different tissues of the body. - But it may also be owing to an inability of the liver to perform its proper Secretory function; the coloring principle of the bile remaining in the blood, - and Dr Budd is of the opinion that a majority of the cases of Jaundice "result primarily and solely from the secretion of bile being suppressed or deficient."
That in some cases the bile is absorbed I make no doubt, for it has been discovered in the lymphatics of the liver by Tiedmann in cases of artificial obstruction of the ducts.
Causes. The causes of Jaundice are manifold - both general and local It may be caused by anything which arrests or diminishes the secretion of the liver or prevents the passage of bile through the ducts. Among the

general causes may be enumerated, long continued Exposure to violent heat; miasmatic influences; the ex-
-cessive use of Spirituous liquors, &c. The local causes may be, tumors of any kind pressing upon the ducts of the liver, such as a scirrhous pan-
creas, pylorus, or the pressure exercised by a gravid uterus, thrusting the hard-
-ened colon up against the liver, this being often the cause of the disease in pregnant females. Gall stones lod-
-ged in the ducts are very common causes. It is also said to depend upon inspissated bile and upon Paralysis of the ducts. Violent mental Emotions such as terror, rage, &c. are also occasional causes. Besides these Jaundice is often caused by acute and chronic hepatitis, and it is ~~often~~ very frequently the result of duod-
-enitis.

Prognosis. In cases depending upon a torpid state of the liver, or upon an obstruction of the ducts by gall stones, the prognosis is for the most part favorable. But when the disease supervenes upon some severe mental shock, or bodily injury, and where it occurs in elderly persons with broken down constitutions and the cause is very obscure. and those cases where coma or delirium sets in, with hemorrhage from the nose or bowels. it usually terminates fatally after a greater or less length of time. A dark green or black color of the skin is also reckoned a very unfavorable Symptom.

Treatment. In the treatment of Jaundice, As in all other diseases, the remedies should be applied towards removing the cause of the disease; but as, unfortunately, in many cases, the most careful attention to the Symptoms presented by the

disease enables us to form nothing but Suppositions, as to the true Cause of it; we are compelled to apply our remedies with much uncertainty, as to their appropriateness; and consequently few diseases have been treated with more empiricism than the one under consideration. When the affection is the result of gall Stones, the first indication is to relieve the violent Spasmodic pain, and to cause the expulsion of the Calculi; the second is to prevent their formation. To fulfill the first indication Opium in large and frequent doses should be given until the pain is much diminished or narcosis is produced. From one to three grains of Opium may be given once in two or three hours until one of these Effects is obtained. If the patient is robust and plethoric, venesection will be of use, but in the majority of

cases the patient is already so much debilitated as to render bleeding inadmissable. In conjunction with the opium warm fomentations may be applied to the side, or the warm bath may be employed. Emetics are also of value on account of their relaxing effect, and also because they may by the violent action which they excite propel the stone out of the passage. In very violent cases the anaesthetic agents may be employed for temporary relief, until the effect of the narcotics is produced.

The Second indication can be best fulfilled by regulating the diet, and by administering alkaline medicines, which are said to have the power of preventing the deposition of the calculus matter. In cases that evidently depend upon torpidity of the liver. coming on slowly and with little pain the

use of mercurials, with proper attention to the state of the digestive organs. will generally effect a cure - this state of the liver being not unfrequently connected with a debilitated state of the digestive organs; and where this is the case tonics combined with laxative and alkaline medicines are required. From one to three or four grains of Calomel, or an equivalent quantity of blue pill may be given every night, and followed every morning with a dose of the neutral salts. just sufficient to move the bowels. The nitro-muriatic acid both internally and in the form of a bath will often be found useful in these cases, But there are cases where all these means fail to produce the required Effect, and here the Chloride of Gold, in doses of a tenth or twelfth of a grain three times a

day is very highly recommended by Prof. Chas. Hooker of this Institution. Not only in cases of functional tor-
-por but also where is organic dis-
-ease of the liver, and after all other means have failed. he has used this remedy with the happiest result. Many other remedies are also recommended, and of these the Sanguinaria, given in as large doses as the Stomach will bear, is one of the most valuable: And where we have been using the mercurials for a long time, and require a change of medicine, it is an excellent substitute.
In acute Jaundice, coming on sud-
denly as an effect of moral causes Active purgation is recommended
In the Jaundice of new-born infants, treatment is seldom necessary, but there may be cases in which lax-

atives, and small doses of mercurials may be required.

In acute and chronic hepatitis and in duodenitis, resulting in this disease, the treatment should be of course directed toward the removal of those affections.

[illegible] Fever

West Africa.

This fever is doubtless malarious in its origin and in its general features is similar to that produced by malaria in other countries.

The face of the country is of a nature generally found to be part and parcel of malarious disease, like a large proportion of the entire coast the land is generally low, frequently intersected by rivers and creeks, and covered by mangroves, bamboos, and other [illegible] loving trees, and often overflowed by tides and freshets.

This position of the land seems to give character to the entire country, hence although

much dry land and this is often elevated, yet it is so surrounded by swamps that the atmosphere is probably uniform throughout the whole region.

These remarks refer entirely to the coast, no settlement having been as yet established upon the high lands of the ~~of~~ the interior upon an extensive scale sufficient to lead to any definite conclusion. The American Colonization Society has a small settlement some twenty miles from the coast and upon tolerably high land, at which the only differance found thus far that that is unacquainted with is, that the attack with their immigrants is delayed but not materially lessened in its severity and duration.

To a person accustomed to observe his own sensations, there is a preparatory stage anterior to the so called attack, which though often overlooked is a part of the disease

This stage is of great importance as it respects treatment for in many cases the further invasion of the disease may be prevented or greatly lessened in its severity

Like symptoms may be observed in other diseases

Preparatory Stage, For a varying period before an attack of the fever, the patient will experience a loss of appetite, restlessness or inability to sleep, an unpleasant taste in the mouth, more noticeable in the morning, constipation is frequently present, an indisposition to exertion which is so

peculiar as to cause dizziness to y.
by the popular term "the fever,
dryness and harshness of the skin,
the urine is pale and copious,
the mental faculties are frequently
somewhat disturbed causing an
inability to study or close appli-
cation to business,

These symptoms
are not always present in the
same degree, sometimes separately.
In many cases the the fever
is sudden in its irruption some
exciting cause comes in giving rise
to the [illegible] developed attack at
once
This occurs after an exposure to
the direct rays of the sun, sitting
in wet clothes after a rain, the
wetting not proving as injurious
if the person is able to obtain
shelter and dry clothes, severe and

long continued exertion, great mental excitement;

In these cases the attack is prompt and powerful but not usually serious in its results,

In case of an exposure there would rationally be a resort to the same means of preventing an attack of fever as are used in the premonitory stage. this is the safe course, it may be often unnecessary but it often prevents fever.

After an indefinite period varying from twelve days to two days another set of symptoms set in these though equally various are more apparent;

This is called the attack or cold stage, commences with an incalination to yawn and stretch, succeeded by cold, the cold being felt in the

feet and hands first, gradually extending over the whole body, the cold increasing the chill soon becomes intense, generally the chill is attended with headache, pain in the back and limbs especially the knees, the skin is shrivelled, the lips have a blue hue, the eyes dull and heavy. the urine is clear and colorless, the pulse is slow and feeble, the respiration is oppressed, vomiting often occurs.

This stage usually subsides under the administration of stimulants and heat after a little time, though frequently these applications are unnecessary the cold subsiding spontaneously.

This stage is often attended with nervous symptoms of a most unpleasant kind dizziness and a seeming inability to walk or

or stand and inattention to objects and scenes around, the duration of this stage is various ranging from a few minutes to six hours and is succeeded by the

Hot Stage. The chill gradually abating the patient feels a most agreeable sense of warmth the extremities regain their natural temperature, then the skin becomes hot, the face loses its shrunken appearance becoming turgid the eyes bright and watery, the pain in the head if any previously existed increasing, thirst usually becoming urgent, nausea coming on with pain in the back and limbs as in the previous stage, the nausea is often a most distressing symptom producing intense thirst and preventing the use of remedies by the mouth and forms a [illegible]

complication in the course of that case, the urine is scanty and high colored, the pulse is increased in frequency and force, the respiration is more free than in the preceeding stage, though not as free as natural.

This stage of fever is variable in its length in most cases if properly treated lasting commonly not more than ten hours, and is succeeded by the Sweating Stage, which is ushered in by perspiration breaking out first on the forehead and neck and gradually diffusing itself over the whole body, the pains in the back and limbs abate, the hardness and nausea subside the urine becomes more copious and of lighter color, the pulse lessens in frequency gaining [illegible] its natural standard. This is the end of the fever

so far as it can be said to end spontaneously and the time for action on the part of the physician and if rightly improved succeeding attacks will be prevented or greatly mitigated

The period of convalescence is in relation to the attack. if the fever is checked after the first or second paroxysm the confinement will be short and after two or three days the patient can resume his employment. When the case is complicated with visceral disease it becomes tedious and dangerous according to the severity and obstinacy of the organic affection and the period at which it is noticed and treated, Affections of the liver and spleen may frequently escape notice for a long time, becoming intractable in proportion to their continuance, always protracting the

fever and at times rendering it fatal. and which from the insidious nature of their attack are not suspected. When appropriate treatment has been practised and the excitement returns after the second intermission there is good reason for suspecting organic disease and a thorough examination should be instituted.

As before mentioned the grand cause of this disease is to be found in the atmosphere. As Predisposing causes may be mentioned. Sedentary habits, intemperance, a change of residence, constipation, and in females that condition of the system that attends upon the menstrual flow.

Treatment. The treatment to be resorted to in cases of mild fever is very simple, the design is to prevent an attack, or rather to prevent

its full development is detected only, or the repetition of the paroxysm is fully formed.

During the forming stage if the patient is seen that early quinine should be given in sufficient quantities to bring the system thoroughly under its influence before the chill comes on.

The treatment during the cold stage is stimulant the patient should be well covered in bed. warm irons, hot stones bottles filled with hot water, all afford some degree of alleviation, fruits with pepper tea and the internal use of the same prove serviceable. an emetic at this stage will often mitigate its severity and shorten its duration, In the hot stage diluents as lemonade, and other acid and cold drinks are both grateful and salutary, in cases in which the febrile excitement is very high, it is

proper to exhibit some of the refrigerant diaphoretics as nitre or antimony, when constipation is present this is the most appropriate period for the exhibition of cathartics they should be given so as to act from four to six hours from the commencement of the fever in this way they not only fulfil their primary indication but materially lessen the duration and severity of the hot stage

If the fever subsides and the headache remains mustard may be applied to the back of the neck, leeches will be found of great benefit or cupping the temples may be practised

The nausea may be relieved by mustard or pepper cataplasms to the epigastrium and some form of opium internally,

During the intermission quinine is to be given it is usual to give it in in six grain doses until the system gives evidence of its presence and

the keep up the impression with smaller doses untill the expected paroxysm has passed, it is best that the system be brought under its influence from two to three hours before the expected attack.
The only guide in the administration of this remedy is the peculiar effect whatever amount may be necessary to produce that is deemed safe in giving.

Henry Williams Foster
Liberia
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A Dissertation

on

Diphtheria.

by.

Elmore Charles Heine,
Plymouth Hollow, Conn.

In very early times there existed in Egypt an epidemic sore throat exceedingly malignant in its character, and running a very rapid course. It was especially fatal among children and youth. The disease gradually extended its ravages to Europe and was noticed and described by Aretus, a Grecian physician, and a contemporary of Galen, under the name of the Egyptian or Syriac ulcer. Others described it subsequently under the different names of *passio anginosa*, *affectus suffocatorius*, *abscessus*, *morbus*, *strangulatorius*, *angina stridula*, *cynanche stridula*, and many others. It was the *garotillo* of the Spaniards, and the *male in canna* of the Italians. In France it was

known under a variety of names till M. Bretonneau in 1826, observed it and considering it to be a specific inflammatory disease gave it the name of Diphtherite or Diphtheria.

The disease at its commencement is characterized by febrile symptoms. The patient has a cold, experiences a chill of longer or shorter duration, and in the course of a few hours feels dull, sleepy, stupid, and complains of general prostration of strength. Along with this he will have soreness of the throat and tumefaction of the lymphatic glands, coryza, and lachrymation, and difficulty and pain attending deglutition. The tongue is coated yellow. The pulse quick, from 120 to 150 and 160 in a minute. Internally the tonsils and uvula are swollen, and red, and look as if covered with a coating of lamin, and showing upon the surface usually of the tonsil at first a small, dirty white, yellow, ash colored or greenish spot, or spots, varying in size from the head of a pin, to a quarter

covering the whole surface of the tonsils, uvula, and pharynx. The exudation is usually gradual in its extension, advancing from small specks, till in two or three days the pseudo membrane covers all the parts above mentioned. In about two days more a dark red line forms around the pellicular membrane circumscribing it. The membrane changes to a dark ashy, or leaden hue, begins to soften, and in two or three days from the time of the appearance of this red line the patient will begin to expectorate it in small shreds, leaving underneath a bright red, smooth, shining, ulcer, over which if the tendency of the disease be strong, the membrane will form again, and again, thinner each time, till the part is left simply covered with mucus. There is usually more or less cough attending the disease. The voice becomes altered, hoarse and unnatural. Fluids taken into the mouth are often ejected from the nostrils. The disease frequently extends itself to the nostrils and

there flows from them an exceedingly fetid sanies. Epistaxis often occurs. The breath becomes very offensive. The membrane has a tendency to extend itself into the Trachea. The disease may occur in a sthenic or asthenic form, usually in the latter. At first as in other inflammations the bowels are constipated, but as the disease proceeds the typhoid tendency becomes more marked, - the stomach irritable, - the bowels affected with diarrhoea, - the evacuations being exceedingly fetid. The urine is high colored, scanty and is found, by applying the proper tests, to contain albumen.

If the disease be severe the membrane forming rapidly may diffuse itself over the throat extend to the Trachea, and the patient in a spasm of croup may die asphyxiated within twenty four hours from the commencement of the attack. The patient may die early from depression produced upon the nervous system, or death may result

from exhaustion. The disease is often complicated with measles or scarlet fever in either of which cases it is apt to terminate fatally. If the patient recovers from the attack, convalescence is often quite protracted, the voice remains altered, the system assumes a cachectic condition, and the patient frequently becomes affected with partial paralysis. — The disease usually runs its course in from five to seven days, but if it be severe it may continue for two or three weeks. Sporadic cases usually terminate favorably. When the disease appears as an epidemic it frequently assumes a malignant form and is very fatal at first, but towards the close of the epidemic it becomes milder and terminates more favorably.

A mild case of the disease came under my care during the month of February last. The patient a lady from 40 to 50 years of age, had taken cold, and when I called on Saturday afternoon, was sitting on a stool, with her back near the stove which con-

-tained a warm fire. She had a gentleman's large traveling shawl, folded many times, thrown across her shoulders, and her teeth were chattering so as to be heard distinctly in any part of the room. While sitting in the Doctor's office on Sunday evening, her husband came in, and said his wife was complaining of sore throat. I went in immediately to see her. Found her pulse somewhat quicker than natural, with symptoms of a cold. She complained of feeling very tired all over. Her throat was somewhat swollen externally and pained her to swallow. The tonsils and uvula were inflamed, swollen, and covered here and there with small white spots of variable size, the largest being the size of a small pea. Prescribed eight drops of the Concentrated Hydrochloric acid to be taken once in four hours. Two or three grains of Capsicum every hour Tartarized Antimony gr. 1/12 every four hours, and a weak solution of Belladonna once in four hours, also small doses of Quinine.

On Tuesday the membrane had extended so as to form a network over each tonsil, the largest patches being the size of a three cent piece, and connected by narrow strips. On Wednesday the red line surrounding the patches was quite plainly visible, and on Sunday most of the false membrane had been expectorated leaving a few small points visible with tendency to form anew till the middle of the week. She had some cough, and her voice was hoarse and unnatural. On the third week she was sufficiently recovered to direct about her work. She complained of feeling weak and of a peculiar pricking sensation, and irritation in the throat for a long time after.

The post mortem appearances of the disease show that it consists in inflammation of the mucous membrane of the fauces. The false membrane exuded forms over the parts a pelicle which is firmly adherent to them and can be traced, in some instances,

to the trachea and minute bronchial tubes. M. Bretonneau states that in fifty four post mortem examinations he found two cases in young children in whom a thick membraniform tube was invaginated into the œsophagus, and extended to the cardiac orifice of the stomach". In a few others the œsophagus appeared whitened for a short distance below the pharynx, but no lesions occurred either in the stomach or intestines. The glands of the throat are swollen and frequently contain abscesses. The microscope shows that the membranes of Diphtheria Croup and Scarlatinal angina are the same in composition, being formed of fibrine or coagulable lymph.

The Causes which produce the disease are not well understood. Some writers claim that it is dependant upon some malarious influence and, prevails most commonly in low marshy situations, - a claim which has failed to be sustained. When the disease occurs

in France, it visited healthful localities on high ground without attacking towns near by situated upon marshes. Visiting towns in marshy districts, and leaving others, lying beside them and as favorably situated, in no way for its ravages, without any cause occurring in their midst. Attacking some communities in the uplands where the earth had yielded its products in abundance, and leaving places on lower ground which were barren and where the inhabitants were suffering for want of the necessaries of life. In California it occurs as frequently in the mountainous regions among the miners, as in the low lands. One writer states that the disease depends upon the toxic action of some gas upon the respiratory organs. The days in the years when epidemics of diphtheria have most prevailed, volcanoes have been in most constant eruption, and that the carbonic acid and sulphuretted hydrogen gases emanating from them are capable of producing diphtheritic coatings on

membranes, and assumes that they do produce this disease. M. Bretonneau states positively that "the atmosphere cannot transmit the contagion of diphtheria", but, that "it is transmitted by inoculation, and that by means more astonishing than that which conveys the virus of small pox." M. Trousseau steeped a lancet in the false membrane of diphtheria, and with this made a puncture on his arm, and five or six on his tonsils and uvula. He produced, on his arm, "a vesicle like to that of vaccination". No results occurred from the incisions upon the mucous membranes. Hence he inferred that "the disease though contagious, was not transmissable by inoculation." While M. Herpin in the spring of the year 1843, was cauterizing the throat of a child for this affection, he received some of the matter coughed up from the child's throat, into the orifice of the left nostril. He was attacked with the disease, from the effect of which he did not recover till after the 10th

of august following. The disease is said to attack the poor, and those of feeble constitution, in preference to the robust, yet among the cases mention'd by various authors, are to be found the robust and the rich as well as the poor.

M. Lavirotte gives a table of 461 cases in which he shows that the disease occurs more often in males for the first fifteen years, and in females after that period of life.

If the disease occurs in a family, all of the children are apt to be attacked with it, and frequently the adults. a family in Courtenay last winter had eight children in succession with it. In another family the mother was first attacked with it, then her three children one of whom died in the hands of a quack after an illness of four and a half days. a lady received the infection from her child, was very sick with the disease for a short time, communicated it to her two children, an aged father and a domestic in the family.

Children nursing with this disease communi

-cate it to the ripple of the mother.

The principal diseases with which this is likely to be confounded are Croup and Scarlatinal angina. Croup is a sthenic disease and its seat is in the Trachea. Diphtheria is more frequently an asthenic disease and its principal seat is in the Tonsils. There is nothing peculiar about the cough of diphtheria, and usually little inconvenience in respiration especially at the commencement of the disease, while in Croup difficulty of respiration and the brassy cough are marked symptoms of the disease. The membrane of Scarlatinal angina is more diffuse, and has more the appearance of mucus coating the parts than of an adherent false membrane as in diphtheria. It soon becomes furrowed, and shows no tendency to extend to the Trachea, while the diphtheritic membrane has a peculiar appearance and shows a decided tendency to extend to the Trachea.

The treatment of Diphtheria should consist in energetic local applications, with

a free use of tonics, stimulants, and the mineral acids, to support the system and give tone to the stomach. —— The antiphlogistic remedies, - Blood letting, Purgatives, Tartar Emetic, and Blisters are all in my opinion contra indicated. They do harm, for the system is not in a condition to bear depleting remedies. Blisters also do harm by inducing a tendency in the disease to extend itself to the denuded surface, and become Cutaneous diphtheritic, an affection which may, and often does lead to as fatal terminations as when the disease attacks the throat.

Mild cases may be treated with the Alum gargle, or by blowing powdered Alum into the throat, or with a solution of Nitrate of Silver used as a gargle, or applied to the inflamed surfaces with a swab made of fine sponge, or of soft linen cloth. In severe cases apply the stick of Nitrate of Silver to the false membrane, and the parts in their neighborhood. to destroy the pseudo membrane

and circumscribe the disease. This should be done three or four times in a day.

Hydrochloric acid is highly spoken of and should be applied once or twice a day with a swab, and only to the places covered with the false membrane. Nitrate of Silver is the best remedy however.

When the disease occurs in the nose, or when hemorhage takes place from it, powdered alum, or Tannin may be used in the form of snuff, or a solution of either of them may be made, and injected into the nostrils.

Monsel's Salt blown upon the inflamed or membranous part is said to operate very finely. It is one of the most powerful astringents known, and probably its efficiency is due to its astringency.

Chlorate of Potash in solution, given every hour, and given freely, operates favorably. Chloride of Soda is also employed with benefit.

The Tinctura of Sesquichloride of Iron is spoken of by many who have used it, as

the best tonic remedy which can be employed. It should be given freely to the extent of from ʒfs to ʒij or ʒiij or more daily.

A few drops, every hour of two of the dilute Hydrochloric or the Nitro-Muriatic acids, may be given with great benefit. The Tincture of Iron and the acids may be given alone or combined with the Soda or Potash. — Quinine in full doses is an excellent remedy to allay fever and give tone to the system. Alcoholic stimulants if necessary should be given freely.

For the prolonged convalescence, and paralysis which sometimes occurs, change of air, sea bathing, a visit to some of the mineral springs, Exercise, and time, are the best remedies

Treatment of Traumatic Hemorrhage.

Arteries convey arterial blood to every portion of the system. They are composed of three coats, External. Middle and Internal. The external or areolar fibrous coat is strong and firm and serves as the principal means of resistance to the vessels, and also for attachment to other parts.

The middle coat is that on which the thickness of the artery depends, and is composed of transverse muscular fibers slightly held together,

The internal coat is a serous membrane smooth, elastic, thin and firm.
Some Anatomists have subdivided the middle and internal, the first into into three the last into two but for all practical purposes the first division is sufficient
Arteries are cillindrical tubes, and retain the cillindrical form when emptied of their blood.
The blood is propelled through the arteries with great rapidity and is of a scarlet color.
When an artery is wounded the blood is forced from the orifice in jets which are synchronous with the action of the heart.
Like other parts of the body they are supplied with blood vesels and nerves
Traumatic Hemorrhage may result from wounds which are incised, punctured or lacerated - or from wounds caused by operation.

If the wound be slight and the artery quite small there may be no danger from hemorrhage, but as a general thing the wounding of an artery may be looked upon as an accident of a serious nature.

Temporary means for suppressing hemorrhage. Pressure by the finger brought to bear directly on the artery or pressure by the finger, on the artery where it is superficial, as for instance where the Iliac artery grapes over the pubic bone. The current of blood may be almost entirely stopped by pressure of the thumb on the artery directly over the bone. again. When a limb has been injured and an artery wounded the hemorrhage may be arrested by drawing a handkerchief or a bandage of any kind tightly around the upper part of the limb. If of the arm the bandage should be tied above the elbow, if of the leg above the knee, by drawing the bandage tightly the hemorrhage may be temporaly arrested

It will not acomplish the desired object if tied below the joint as there are two bones and pressure sufficient to stop bleeding cannot be brought to bear upon it
When an artery is denuded, and cut entirely across the severed ends will contract and retract This is not always the case if the subject is a grown person, especialy if quite old, as in many cases the arterial system in old persons becomes more or less cartelagenous or some parts may become opsefied by a greater deposition of earthy matter
When contraction occurs the ends of the severed artery recede into their sheath while at the same time the size is diminished, the blood becomes entangled, coagulation takes place and if the artery is of moderate size this will frequently stop the bleeding especialy if the wound is a lacerated one, as a torn artery bleeds less freely than one that has been wounded by a sharp cutting instrument.

The lacerated extremities of the artery may die, fibrin be separated mechanically from the blood and hemorrhage is arrested In wounds of this kind bleeding ~~[illegible]~~ from small arteries is often permanently arrested. Coagulation is then sometimes sufficient to suppress the hemorrhage from arteries if they are small and if the wound is a lacerated one.

A coagulum may form in incised wounds, and persons not acquainted with the structure of the parts may flatter themselves that the bleeding is permanently arrested, this is not the case; hemorrhage will always return in a few hours, a channel will be formed through the coagulum sometimes protruding out of the wound looking like the end of the artery. The coagulum should be removed and the part kept open an hour or so. Union by the first intention will take as readily as if the parts were

brought directly together. if the artery is small the cold may act as a styptic and bleeding be permanently arrested.

Bleeding from small arteries may be arrested by twisting the ends with forceps lacerating them and thus permanently arresting the flow of blood, again.

In surgical operations the arteries of the bone are somtimes found enlarged to that extent that means for suppressing hemorrhage is necessary. It may be arrested by cauterizing the part with a red hot needle or by filling the orifice with a small dorsel of lint.

Cold water applied by a cloth will sometimes arrest hemorrhage.

Styptics; a great number have been employed among which is the spiders web which acts mechanicaly and has sometimes proved sufficient, The astringents have been used with success - Tannin - Acet. of lead &c

One of the best is the common alum applied to the orifice and retained by compress and bandage. This forms a firm coagulum, which should be allowed to remain a week or ten days. If on removing the hemorrhage should reappear the bandage should be reapplied.

A preparation of the Per Sulphate of Iron called Monsells salts is the best of all. It is a recent discovery but has been succesfully used in many cases where before its introduction, a ligature would have been thought necessary.

It has been said that all arteries no larger than the radial, may be succesfully treated for hemorrhage, by the use of this article.

The manner of applying it. The finger should be placed on the bleeding orifice until the salt is applied, all blood should be removed from the part as far as possible and a small quantity of the salt applied on a piece of cloth,

which should be held for five or ten minutes directly over the wound in such a way that no blood shall issue from the wound, as that would interfere with its action.
It makes a dark spot where it is applied but does not produce inflamation.
Ligation. "When an artery of moderate size is wounded the ligature is the safest, the surest, and the simplest remedy"
Ligatures of various sizes and of different material have been recommended by different authors, some have pronounced those best which are flat and broad; fearing that smaller ones would cut through the external coat when tied.
Others have recommended the use of a ligature made of fine animal fibes, claiming that both ends of the ligature may be cut off close to the knot, that it will remain until ~~absorbtion~~ hemorrhage is permanently arrested and then be removed by absorption.
Others have recommended those made

of linxed or silk threads; again. Others, have recommend those made of small silver wire.
The finer the ligature the better, provided it is of sufficient strength.
When the division of an artery is partial, it should be ligated above and below the wound and then divided. This is necessary especialy when an artery is denuded. If this precaution is not taken ulceration will likely to ensue, and secondary hemorrhage follow.
The manner of tieing the artery. If it is accessable through the wound, the application should be made where the artery is wounded. This is the rule at the present time, but in many case where there is a deep puncturing wound, it is impossible to reach the bleeding vessel: if this is the case, an incision should be made above the wound, applying the ligature ~~artery~~ as in other cases.
After laying the artery bare, a ligature should be selected, which is small, even,

and strong, the ligature should be passed into the eye of an aneurism needle, the artery should be taken by the forceps, and the needle passed under it, a knot should then be tied, the operator placing his thumb together drawing the ligature until he feels the inner coats giving under his thumbs, a second knot should then be tied.

A deep seated artery may sometimes be reached by placing the needle in a pair of forceps or by a needle having a handle to unscrew after the needle has been passed under the artery.

After a ligature has been applied one end should be cut off near the knot, and the other end passed out of the wound.

The opposite sides should then be brought together and retained by adhesive straps.

When a ligature is applied it divides the middle and internal coats, the wounded surfaces are brought into apposition. inflamation is excited, lymph is poured out, and the wounded parts are thus united

while the external coat ulcerates, separates, and the ligature comes away.

A coagulum of blood is formed between the artery tied and its collateral branches which assists also in the suppression of femoral hemorrhage.

Arteries may be ligated in every part of the body, for when an artery is tied the anastamoseing branches, by a most beautiful provision of nature enlarge sufficiently to circulate as much blood through the limb as before the ligature was applied. For instance. the lower limb is almost entirely dependent on the femoral artery for its supply of blood. Let that vessel be entirely obliterated the branches will enlarge so that in a few months the circulation will be as active in the injured limb as before the accident. In a few cases the circulation has been carried on for some length of time when the aorta has become useless through inosculating branches of the Iliac and

ligature with the internal mammary artery.
Precautions in applying the ligature.
Great care should be taken not to wound
the accompanying vein and nerve.
In carrying the instrument under the
artery keep the point close to the vessel.
It is important always to remove the sheath
and apply the ligature directly to the external
coat, taking great care not to denude
the parts more than is absolutely necessary
and the ligature should be applied as near
the natural connections as possible, as the
healing process will not go on as readily
when the ligature is applied to the denuded
artery
Ligatures should not be applied when
branches are given off as coagulation
is not apt to take place and there
is great danger of secondary hemorrhage
If an artery is wounded near its collateral
branches it should be ligated above
the place of injury

The ligature comes away from small arteries in from eight to ten days if the vesel is large it may take from ten to twenty days, the length of time they remain varying very much in diferent individuals,
At the end of seven or eight days it should be carefully felt for, if it still hangs at the bottom let it remain two or three days longer, then very carfully try it again.
If at the end of twenty days it is still adherent more force may be used, it may be retained mechanically the loop and knot being larger than the opening by useing a little extra force it may come away. If it still hangs, persevere in the efforts and after a little time they may be succesful.
The Surgeon should take great care not to use too much force at any time as secondary hemorrhage has

been produced by useing more force than was justifiable, If it still remains fast, a small stick may be tied to the end of the ligature hanging out of the wound holding it in place by a plaster gently rolling it to a slight extent. being carefull not to use too much force in this way if other means fail it can generally be drawn out.

The patient should be kept quiet as possible after the operation. and if the artery is of large size it is best to keep the patient in bed until the ligatures come away, this is especialy necessary when the artery ligated is one of the lower limb

Henry a. Hoyt.

A Dissertation

on

Lead Poisoning,

by

Joel Wilbur Hyde.

Greenwich. Conn.

This includes poisoning by any of the preparations of lead. The symptoms are various, and always well defined. The general system, or that part of it at=
=tacked, is so attacked by the action of lead on the nervous system: internally, there is mere increase of nervous action; externally, there may be increased sensa=
=tion and motion, or one or both may be lost.

The preparations of lead most used in the Arts and in Medicine, are litharge, red lead, the carbonate or white lead, the acetate, or sugar of lead, and the sub=
=acetate or Goulard's Extract. The two last are soluble in water, and conse=
=quently most active in their effects on the animal Economy. The others in a greater or less degree, when acted upon by the acid secretions of the stomach, acquire the poisonous qualities attribu=
=ted to them.

Lead in any of the above forms,

may, unwittingly, be introduced into the system. We do not wish to be understood, that lead poisoning generally occurs from the medicinal exhibition of any of the lead preparations; for this is seldom a sequence, but still proof is not wanting, that all the symptoms have in reality presented themselves upon the long continued use of a solution of the subacetate of lead upon abraded surfaces: furthermore, instances are stated of similar results following the use of large and repeated doses of the Acetate internally.

Lead dealers, lead manufacturers, miners, painters, glaziers and others, equally intimate with preparations of lead, in their daily avocations, most frequently are the victims of this disease.

The vapor of melted lead, and the carbonate of the protoxide, more often produce it: — undoubtedly, because there

are more people exposed to lead in these forms than otherwise. Still, any prep=
=aration of lead, capable of finding its way into the circulation, may produce lead poisoning. It is fully understood, that by whatever avenue lead enters the system, its own peculiar effects are just as readily and distinctly observed.

The three principle ways of lead in=
=duction are by the stomach, lungs and skin. Years ago lead was much oftener given as an internal medicine, and in much larger doses than now: hence, lead diseases were more frequent. Tanquerel states many cases where doses varying from 6 to 10 grs. were given for several days, followed by the most marked and painful symptoms, and, in one or two cases, by death.

The accidental mixture of the carbon=
=ate of lead with flour used for culinary purposes, has also produced like results,

as has the use of water, drawn from lead cisterns or through lead pipe.

There are, indeed, a hundred different ways for lead to be taken into the stomach, the victim being at the same time wholly unconcious of it, and any one of these may cause the deplorable results of which we speak.

In the early ages, medical men supposed that there was but one way by which lead could be introduced into the system, and that by the stomach. Although we now know of other means for its induction, still it has never been denied, that the stomach of all other organs, most often fulfills this act, and that by absorption.

The same may be said of the lungs, that the minute particles which come in contact with the membrane of the minute bronchi, are thence readily absorbed and taken into the system.

Individuals not working in lead are

seldom attacked with lead poisoning by breath=ing in particles of lead: — still this does occur. Andral and Tanquerel both speak of lead poisoning from sleeping in newly painted rooms: — this, too, is known to come on very rapidly at times — one or two nights being sufficient to fully devel=op it. A very remarkable case of poi=soning by being in a newly painted room, occured in this city, some time since: the patient as the case shows, was of the most acutely sensative temperament, ~~the patient~~ remaining in the room only the short space of two or three hours, during which time all the symptoms of lead colic supervened.

Other cases of poisoning are noticed, in which the exciting cause was leaden particles inhaled with snuff which had been confined in boxes lined with sheet lead. Speaking of this, Tanquerel says, "Certainly, the action of snuff on lead is very speedy; it begins after a few hours.

It forms acetate, carbonate and hydrochlorate of lead in from six to thirty grains pr. pound.

It may easily be conceived how persons who use snuff containing these salts, from the absorption of lead by the surface of the mucous pituitary membrane will be attacked with symptoms of lead poisoning."

Absorption by skin. In regard to the actual absorption of lead by the skin, there was for a long time doubt. Experiments proved that Ether, alcohol, opium and even mercury were readily absorbed by the skin, finding no invincible obstacles in the Epidermis; but, it was yet to be proved that actual symptoms of lead poisoning had presented themselves through a like absorption of the lead. As before stated, these symptoms had occurred, where a solution of the Sub acetate had been applied to denuded surfaces, but only known in those instances; never where the whole of these

integuments were entire. Prof. Pliny A. Jewett of the Yale Medical Institution had under his care a very interesting case, where all the symptoms of lead poisoning were brought on by the use of a solution of Acetate of Lead; — ℞: ʒi — oj, as an in= =jection per vaginam: in this case there was ulceration of the os uteri. The disease succumbed to proper treatment, which it is not necessary to detail. Such re= =sults are not infrequent in vaginal in= =jections of lead, especially when long con= =tinued: still the probabilities are, that in this case the disease was accelerated by the ulcerated condition of the parts.

Experiments were tried with many of the lower order of animals, as the dog and rabbit. The hair was shaven off from the thighs and belly, and strong solutions of lead, also the cerate of lead, were applied: this was frequently repeated for a long time. In no instance did any lead symp=

=toms appear. Tanquerel argues from this the impossibility of induction of lead by the healthy skin, in sufficient quantities to pro=
=duce symptoms of lead poisoning: still, he holds, that like mercury and other metalic substances, it must in a small measure at least enter the system, but, unlike them, in too minute quantities to produce any effect.

In this disease as in most others, the predisposing causes range ac=
=cording to age, sex, temperament and general habits. The age, as is most natural, corresponds the age presenting the greatest usefulness and activity, viz. from the age of 25 to that of 45 years: between these ages are a large proportion of the lead manufacturers and dealers in lead, miners, painters, &c. Statistics show, of 1149 cases, 911 were as above, — between 25 and 45 years of age. Women are far less frequently attack=
=ed than men: — the most plausible rea=

Diagnosis of Lead Poisoning

1st Pain. twisting. tearing.
2nd Constipation. severe.
3rd Urine. Scanty & acid
4th. Stomach. irritable.
5th. Breath foetid.
6th. Blue line on gums.
7th. Retraction & hardness of abdom.
8th. Tumors of abdomen.
9th. Tongue. Moist. &c.
10th. Fever in disease: never except in febrile Complications.
11th Paralysis. especially the Drop Wrist.

Hyde

=soning for this is that they are workers of lead in far smaller ratio than men; still, in some neighborhoods where women are engaged to=gether with men in the grinding of white lead, statistics prove an equal liability on their part to contract this disease.

Temperament — has little if anything to do in predisposing causes of this dis=ease. Of 72 patients, just one half were robust and sanguine; the rest, nervous and lymphatic, and of middling constitution. Once in a great while a very peculiar consti=tutional susceptibility appears in a patient to this disease, as where by remaining two or three hours in a newly painted room caused lead symptoms; but these may well be called exceptions, so rare are they.

The season of the year, according to the best writers upon this subject, has no effect whatever, upon the contraction or cure of this disease.

Apparently strange inconsistencies ex=

=hibit themselves in different patients: some escaping under precisely the same circum=
=stances as those under which others suffer.

Again, — one person may be attacked once only during a life time, while another may be attacked as often as exposed —

Action of Lead. Lead is supposed to act upon the system, by its immediate influence upon the nervous matter, where ever it comes in contact with it. Its action seems to be similarly definite on both motor and sensative nerves, di=
minishing and ultimately destroying all motor power as well as the power of receiv=
=ing and conveying the impressions to and from the part.

It is now generally believed, that the local effects of this disease always pre=
=cede its general and constitutional effects: that it gradually attacks the nervous centers, causing the lead paralysis: last

of all, overpowers the Brain. It not infrequently reaches the two first stages: from these, patients almost invariably recover: but from the third stage, — attack of the Brain, — there is far greater danger, and even a large proportion prove fatal. Its real approach signifies emphatically the excessive nervous depression of the whole system, and forbodes too often cerebral and spinal congestion, hemorrhage, and a host of other evil concomitants, such as complete paralysis of the body or mind or both.

Diagnosis— The diagnosis of lead poisoning is not difficult. Certain symptoms always accompany it which betoken no other disease: Still many of its symptoms are synonomous with those of other diseases, as for instance, the acute pain of lead colic often resembles that of gastro-Enteritis, and other

inflamatory diseases of the abdominal vic=
=era. But in this disease, as in all others,
we must not judge by one symptom, but from
the agregate symptoms. We are to study
the antecedents of the case, and with a
careful review of its peculiar specific phys=
=iognomy, we can scarcely make a wrong
diagnosis. We have the acute pain with
its intervals — constipation — nausea —
slow, hard pulse — great anxiety — pecu=
=liarly altered secretions — paralysis —
grotesque motions, &c. These, with other
concomitants of the disease, should de=
=clare the malady at once.

The predominant symptom of this dis=
=ease is Lead Colic; and, really, so frequent
is the occurrence of this in the disease,
that all lead diseases, in general, are
sometimes spoken of under the name,
Lead Colic. A few of its characteristics
are as follows: —

Pain: — this is often of the most intense

character. It is variable in its position, the umbilicus having the preference. the epigastrium and hypogastrium next, in order. The pain is generally on or near the mesial line; sometimes, though rare, it affects the renal regions, and again, the testicles.

The pain is described as of a severe twisting character, sometimes of a tearing, pricking, or burning sensation. It is frequently much relieved by pressure directly upon the parts; at other times simulating acute inflamation, the parts can not be touched without great and increased pain.

During these spasms, the anxiety and anguish depicted on the patients countenance are indescribable :— he moans,— rolls from side to side of his bed,— doubles himself up,— strikes his abdomen,— bites his fingers,— and sometimes despair forces them to attempt or beg immediate death.

This however is only a picture of violent cases; by far the majority do not suffer so extremely.

In lead colic there are distinct intervals between the exacerbations: these may be only remissions or they may be complete intermissions. They vary from a few seconds or minutes in length. to hours and even days. It is also said that patients are sometimes instantly relieved from a severe spasm and no returns ever follow: but, they generally continue to return, growing less severe each time till they finally cease.

Constipation:— this is next in prominence among the characteristics of lead poisoning. It is said to vary in intensity with the pain. In violent colic, so obstinately constipated are the bowels sometimes, that the most powerful drastic purgatives are demanded to produce evacuations:— these are followed at first by small, hard

lumps of feces. then by dark mucous ex=
=crements. The patient frequently feels an
irresistible impulse to go to stool, yet is
incapable.

Urine, generally natural, but scanty and
acid.

The Stomach, is frequently irritable, reje=
=ting food. for which, as a general thing there
is no apetite.

The Breath, almost invariably has a
foetid smell, sometimes almost intolerable.

Around the base of the teeth and upon
the gums, there is often a blue streak.
This is an infalible sign of lead disease.
Chemists distinguish it as Sulphuret of Lead.

This is depasited gradually, and formed
by the action of lead with the sulphuretted
hydrogen evolved from the decomposed par=
=ticles of food lying between the teeth and
gums.

Retraction and hardness of the abdomen
is another, sometimes valuable diagnostic sign.

Tanquerel says of 1217 patients, 649 had this symptom. Speaking of its intensity, he says, "It may be manifested in infin= =ite degrees:- sometimes so depressed as to appear glued to the spine, which then can be easily felt and distinguished by the touch."

From various authors we learn that the retraction is similarly situated with the pain, choosing in order, the umbil= =icus, [frequently sunken cup-shape] Epigas= =trium and hypogastrium. This is an actual spasm of the abdominal muscles, as it cannot be overcome by bending the lower limbs upon the pelvis, or diverting the patients attention from it. The length of its duration is generally synonomous with the exacerbations of pain.

The abdomen scarce ever shows inflam= =tion and never much.

Tumors:— both stationary and mobile, appear in the abdominal parietes, caused

by spasmodic action of the intestines or accumulation of foeculent matter: they disappear with the exacerbation, or entirely with the disease.

There is frequent nausea, - but little vomiting, not at all in proportion to the pain. Usually, there is great difficulty in evacuating the Stomach. There is no general rule of treatment for this: medicines favorable to one may be most unpleasant and oppressive to another. The matter vomited is generally greenish in color, viscid, very foetid, bitter and Coppery in taste: this in extreme cases is colored with blood or merely striated.

Tongue: — this is moist: generally covered with a whitish or light yellow coat in the middle and brown on the posterior portion of it. It is sometimes enlarged for the time being —

Fever is never a concomitant of lead disease, except in febrile complications.

Paralysis, Encephalopathy and Arthralgy appear at times in lead disease. The Encephalopathy and Arthralgy I shall not speak of, as they so seldom appear before the practitioner; - and my space is limited.

Of Paralysis, as aforesaid, it may be, externally, partial or complete. But the more common form in which it ap= = pears is in one or two of the extremities, as the arm or leg. By far the most common is what is called "drop wrist," or paralysis of the Extensor muscles of the fore arm. The probable reason why we do not see the other forms, is, that medicinal means, are used here, to ward off increase of the disease; so that it does not have time to attack other parts before arrested. But why the paralysis should attack the forearm first, in pref= = erence to other parts of the body is not accounted for.

Prognosis. This may always at the beginning of cases, be given as favorable, and, indeed, so seldom does this disease arrive to an advanced stage before intercepted, that the physician never gives, and scarce ever thinks of an adverse prognosis. When left merely to nature's efforts, it often cures itself, though it is only in a certain class of cases that this will occur: proper or improper treatment has much to do with the prognosis.

For a disease, which is generally so severely painful and acute in its symptoms, it terminates in recovery in a remarkably short space of time, - a few days frequently suficing. This is however, only in primary cases; where Paralysis, Encephalopathy, &c. supervene, then, if a cure is effected, it is expected to be long and tedious.

It is estimated by Tanquerel that about 1/4 of the cases of lead disease

result in Encephalopathy: these never pre=
=sent a favorable diagnosis. - too often pro=
=ving fatal. Excepting this complication,
the no. of deaths from all the others is
about 1 in 43. So we see death is com=
=paratively a rare occurrence.

There may be influences which tend
to retard the cure of colic or which
render it chronic; these are necessa=
=rily accompanied with an unfavorable
prognosis.

Again. whenever Metastasis takes
place from one organ to another as from
any of the abdominal viscera to the
brain. or large joints. it always betokens
bad results. and is an index by which
to judge to what an extent the disease
has already obtained the mastery over
the system.

While the disease remains in the Ab=
=domen. it is generally considered cura=
=ble. the prognosis always being more

or less favorable in accordance with the severity of the symptoms: any departure from this primary seat of the disease, is looked upon suspiciously by the practitioner.

Relapses also favor a grave prognosis.

Treatment. Orevallier & Layer knowing the laws of chemical decomposition, proposed the use of hydrosulphuric acid, which they supposed would take up the particles of lead in the system, & without further injury to the system, carry them off, effecting a cure: but he failed in the application of his pet theory. Nux Vomica was tried by Tanquerel: - respecting it he says, "It seemed inhuman to experiment with other medicines, which Experience had proved to be powerless in this affection". He treated 14 patients with it, they growing worse & worse each day, till he finally adopted other treatment.

Broussais considering this Gastro Enteritis treated it with bleeding, repeated leeching.

warm fomentations, baths. Emolient injections. and dilluent drinks. Great success was claimed for this treatment though public opinion has been slow to decide in favor of it. Emetico Cathartics have been given & in many instances produced great relief.

Opium, here, as in every other disease has been used. and as every where Else has strong friends and Equally strong Enemies. Dr. Stoll used this solely and Extensively. and says. "his cures were very happy, prompt. lasting and numerous." Others have failed entirely in producing so favorable results. Still, it is used to a great extent at the present day, in combination, by practitioners.

The purely Purgative Method has been advocated by hosts of physicians: the base of this treatment is Croton oil: this class of physicians boast very numerous and complete cures as results of their practice. It is said that much superior effects result from the use of the two latter

medicines used conjointly. Mercury, again, is often used. Wood says "Mercury appears to exercise a specific controlling effect on lead poisoning, but as its operation when pushed too far is very inconvenient, & as in so severe a disease, it cannot always be used with that caution which would only secure a slight impression on the mouth, it is best to use it only in urgent cases. The Iodide of Potassium. This article at the present time, appears to supercede all others of the Pharmacopeia, in the treatment of lead poisoning: still some, even yet, will not recognize its superiority over their pet treatment. It is known positively that it decomposes the particles of lead, carrying them off by the action of the kidneys. It is the nearest a specific for this disease, of any treatment now practiced.

Management of Surgeral women
and the Child

Samuel McClellan.

January 1861

day, a period of suffering from nausea, vomiting, and general disturbance of the functions of all the organs, from the want of a proper training in early life, which might have brought the system to work with more perfect regularity and order.

The distress attending pregnancy may be much relieved by proper regimen.

Delicacy should not prevent the woman from taking exercise in the open air. But over exertion and fatigue must be guarded against. She must have sufficient sleep and at the proper time.

Regular [illegible] to [illegible] skin in a condition to perform its duty.

The food should be [illegible] and such as the stomach can readily digest. An immoderate quantity should not be taken under the impression that she has two to feed.

Dress should be regulated

in the season, and should not be so tight as to cause pressure. [illegible] the use of stimuli should be avoided. The mind should not be overtasked by care and anxiety.

When the uterus has fairly ascended into the cavity of the abdomen, it presses upon the bowels, separating them from the abdominal muscles, and prevents their receiving stimulus from the succussion of these muscles.

This produces constipation with other evils. Sometimes a large quantity of feculent matter accumulates in the intestines. This may be prevented by abstaining from the use of such articles of food as tend to produce costiveness, and the use of proper laxatives.

When the vomiting is discussing it may generally be relieved by appropriate treatment.

It is an error, not unfrequently made, to suppose that after labor the woman is in a state of exhaustion, requiring stimuli. Excepting when the labor has been unusually severe and protracted and the losses great and stimuli are strongly indicated, they should be withheld. She should be kept quiet and sufficient time allowed for her to recover from fatigue. If the after pains are severe, preventing rest, they should be allayed by the ordinary means.

After a few hours of rest, when reaction has fairly taken place, the child may be put to the breast, that it may begin to exercise the faculty of sucking, with which it is born; also to hasten the secretion of milk and accustom the nipple to the action of the child's mouth. Trouble sometimes arises from delaying this matter.

The mother must not be allowed to make any exertion, and all excitement

should be avoided. If there is inability to pass urine, the catheter should be introduced, as soon as there is the slightest uneasiness from this cause, and this should be done twice a day, or as often as necessary. If the bowels do not move after a proper interval, some mild laxative should be administered.

The lochia proceed from the extremities of the uterine vessels exposed by the seperation of the placenta: it will therefore be in proportion to the number and size of these vessels, and to the tonic contraction of the uterus. Of course the quantity and duration of the discharge will not be the same in all cases.

Excepting when it is a symptom of other complaints, the scantiness or cessation of the discharge need cause no uneasiness. When the lochia are too free, it is the result of a want of tonic contraction, or a febrile condition, produced

often by the improper administration of stimuli. In the first case, measures must be taken to promote contraction.

In the second case the cause of the symptoms must be removed; then mild antiphlogistic measures, with astringents, will generally succeed.

Sometimes the lochia become very offensive, watery, and of a green color, and acrid, excoriating the parts.

The patient is almost always debilitated by this discharge, and tonics are indicated, and generous diet may be allowed. Much relief may be given by anointing the parts with some bland ointment.

The lochia generally abates about the fifth day; sometimes sooner. If it continues beyond the tenth day in any force it will be proper to interfere.

The diet should be farinaceous, untill the fifth day, or till the milk is secreted and easily extracted. If the breasts become

painful, hot and swollen, and the child cannot easily extract the milk, they should be carefully emptied of their contents by artificial means, and antiphlogistic measures adopted. Fluids must be avoided. From the fifth to the tenth day, she may be allowed, if nothing forbids, to take a moderate quantity of animal food; as eggs; beefteas &c.

Her meals should be served at regular intervals, and food and drink should be taken only at meal times.

After the ninth or tenth day, she may be allowed to sit up for a short time, care being taken to avoid fatigue, gradually increasing the time, day by day.

After the child has been properly dressed the temperature of the body should be kept at the natural standard.

The new born infant seems to have an

unlimited capacity for sleep.
Under ordinary circumstances, neither food nor medicine should be given, excepting such as nature has provided.
The colostrum, the first secretion of milk, containing more serum and butter, and less casein, than that which follows, has evacuant properties, & tends to remove the meconium. This will generally be sufficient for medicine.
The mother is rarely able to furnish milk to the child at its birth, and the impression, that the babe will suffer from hunger during the interval between its birth and the free secretion of its proper food, sometimes leads the over kind nurse to administer nourishment, con-suitable in quality and quantity.
As a general rule, no food should be given to the child excepting what nature provides.
If the milk furnished by the mother

is sufficient, in quantity and quality for the nourishment of the child, no other food need be given at any time, but if this is not the case it will be necessary to supply it from some other source.

Cows milk diluted with one third water & a little loaf sugar added is most commonly employed substitute for the human milk. But milk, prepared after these general directions, does not suit in all cases, the stomach of the newborn infant.

Even if it does not produce positive derangement the child will not thrive as a full fed & healthy child should

Cows milk may be made more nearly to resemble the human milk.

By diminishing the quantity of curd in ordinary milk by the addition of water, we have diminished in proportion the quantity of nutriment in the milk.

If we take the last third of the milking or what in the country is called

the strippings or after allowing the milk to stand three or four hours take the upper third of it, we have milk which is richer in butter and contains less casein and this may be diluted for the use of the infant to proportions suited to its age and condition. This theory has recently been tested with success.

Americus —

by

Samuel Hanley Olmstead

- Aneurism -

Aneurism has been defined to be — A sacculated tumor connected with an artery and filled with blood which has been poured into it on account of some defect in the arterial coats. The predisposing cause of this disease is some unexplained constitutional tendency to arterial affections, begetting an atheromatous or an ossific formation in the middle coat of the vessel - The exciting cause may be anything which increases the violence of the hearts action. - such as strong mental emotion, violent bodily exertion, or stimuli or it may be a local injury.

It is not commonly a disease of either of the extremes of life, (though it is sometimes met with in childhood) appearing most frequently between the ages of thirty and fifty years, and in males oftener than in females.

It is met with in a variety of forms, induced by different causes, but all possessing in a greater or less degree the same general characteristics. It exists either as a spontaneous or a traumatic affection. Its different phases may be classified with a good deal of distinctness, under three heads. In the first form, there exists a dilatation of all the coats of an artery for a part of their circumference, forming a not very well defined tumor. In the second - and most common - the aneurism is formed by a dilatation of only the outermost tunics of of the artery, the internal having ~~having~~ from disease or injury - become pervious allowing the blood to pass through the opening and to distend the remaining coats, which yielding to the continued pressure brought to bear upon them by the force of the circulation, give rise to a distinct, well defined tumor. (If an Aneurism of this form be traumatic there will have been following the wound - a union of the outer cellular coat of the artery)

In the third form, the tumor may be spontaneous, following an Aneurism of the second class, which-bursting its sac - allows the blood to be poured out into the deep seated cellular tissue, or it may be purely traumatic (which is most commonly the fact,) - having in either case its investment of the condensed cellular membrane of the part - forming what is called a diffused aneurism.

In addition to these forms, there is sometimes found - what is termed - the dissecting aneurism, in which the blood gaining access to the cellular structure between the coats of the artery separates them from eachother and running between them for a distance may communicate at the extremity opposite to its commencement with the calibre of the artery, thus forming a false canal through which - as well as through the true channel the blood may flow during the life of the patient. There is also another form - first described by Dr. Wm. Hunter - as Aneurismal varix, in which an artery having been punctured through a vein, the blood flows into and distends the latter - being returned through it to the heart -

The Symptoms of Aneurism are ordinarily well marked, and – after a careful diagnosis, and a knowledge of the history of the case – may commonly be easily detected particularly if it be seated in the neck or either of the extremities: in which case it will appear as a tumor lying along the track of the artery always susceptible to the force of the heart's impulse. But, that a tumor upon a slight examination seems to pulsate is not an infallible evidence that it is in direct communication with the artery near which it lies. Tumors of many descriptions if in contact – or nearly so – with an artery of large size may have its impulse communicated to them. Here it is important to consider the history of the case. The tumor rarely, unless it be Aneurismal – pulsating so long as it is quite small. After this stage in its growth has passed, it can often be found that although pulsation is present, it will be forced only in one direction, and that upon seizing it in the fingers and withdrawing it from the artery as far as possible the pulsation in it will diminish in force or cease altogether. In regard to this point the diagnosis between Aneurism and Fungus Haematodes is often difficult but in this

malignant affection light is thrown upon the case by the presence of constitutional indications of the peculiar cancerous diathesis. An enlargement of the lobes of the Thyroid gland which may - from the action of the Carotids - appear to pulsate, may be distinguished by the fact that it differs from an Aneurism (which cannot be moved to any great extent along the course of the artery) in that it ascends and descends with the movement of the muscles in deglutition.

An Aneurism will be in itself almost painless and of but little inconvenience, occasioning only an uneasy throbbing sensation in the part. If however it press heavily upon the trunk of any nerve which may be near it, the usual symptoms of pressure upon nerves will be the result - Pain, which may be great, appearing not necessarily in the immediate vicinity of the tumor alone, but along the whole of the limb, or in any part to which the compressed nerve may be distributed.

Early in its growth the tumor is of a fluctuating character, and may with care - particularly if the flow through the communicating artery be impeded - be so compressed as to cause it to diminish greatly

greatly in size and to empty it of its blood, which will flow back into it upon removal of the pressure, and after two or three pulsations filling it as before. This symptom is not always present when the tumor comes under the inspection of the surgeon, for there exists in the Aneurismal sac a disposition to thicken from the deposition of fibrin either directly from the blood or from the internal surface of the walls of the tumor, which increasing gradually may ultimately fill up the entire cavity - resulting in a spontaneous cure; although this last feature is very rarely met with, yet often the walls of the tumor become so much thickened as to render its evacuation a thing impossible - In making this examination care should be observed - particularly if the tumor have its seat in the soft tissues - lest it be pressed down into and buried in the thigh, thus deluding the inquirer into the idea that it is a compressible Aneurism which he has emptied of its contents, but which is actually a solid tumor of another character. It was formerly supposed that the presence of a peculiar vibratory thrill or bruissement, in connection with a tumor, was indicative of an

aneurism, but later examinations have proved that this sound may be occasioned by the pressure of any humor applied to an artery and that it is therefore of little importance as a means of diagnosis. Abscesses near near the trunks of an artery may be distinguished from Aneurism. by the character of the existing pain and by the fact that at their first appearance they are hard and unfluctuating, softening as their age increases. while the progress of aneurism is directly the reverse. The direction which an aneurism takes in its progress is similar to that of an abscess - towards the surface of the body or towards any of the mucous cavities, being unimpeded by any tissue whatever. causing to be absorbed every thing between itself and the surface

It at first contains fluid blood alone but after a time fibrin will be formed in layers, one within the other lining the sac and increasing its thickness and firmness

In Aneurisms of large size there will almost always be present increasing with the age of the humor. Cases have been known, in which a cure has followed the detatchment from the walls - of a portion of this fibrin, which falling over the opening in the artery. prevented the circulation of blood through the humor. If the Aneurism arise

at the surface, it will ulcerate and open, a hemorrhage resulting which - unless treatment be resorted to - may be suddenly fatal, but ordinarily the flow of blood will be stayed for a time, and the wound will not be fatal until after two or three returns - An aneurism may exist in any large artery upon which the causes producing it are brought to bear. Its most favorite habitat is in the aorta near its arch - then in order the Popliteal, the Femoral, Subclavian, Carotid and Axillary

There are few branches in Surgery in which - during the past century - more decided practical advancement has been made than in the treatment of Aneurism. It was formerly supposed to be an incurable disease, or at least one in which the treatment was beset with so much difficulty and hazard as to render any efforts for its control too perilous to be warrantable. But at the present time the practical employment of a few simple principles is found sufficient to subdue and exterminate the affection with entire safety to the patient, unless it exists in one or two unfortunate locations, for example - Aneurisms of heart or arch of the aorta, situated, as they are, so near and in such

important relations to the center of the circulation, admit of only a palliative treatment, and it is not probable that there exists, or can ever be discovered any method for effecting a radical cure. certainly it cannot be achieved by surgical interference.

In the treatment of Aneurisms, the indication is, to produce the filling up and obliterating of the cavity of the tumor by promoting the coagulation of the blood within it. A great variety of measures have been employed to produce this result. Attempts have been made by repeated venesections, and by the administration of other depletory or depressing agents, to diminish the force of the heart and arteries, and of course at the same time, the vigor of the circulation in the tumor The acetate of lead with opium and acidulated draughts and other medecines which are supposed to increase the coagulability of the blood and to diminish the calibre of the arteries, have been attended with beneficial results in a few cases. So also the injection into the tumor of substances which will cause the blood to coagulate within it has been performed and would undoubtedly be beneficial, could their action be restricted to the

discard part alone, and not as is the fact be unavoidably allowed to extend beyond it, producing an injurious disturbance throughout the entire circulation. With the same end in view Galvanism has been resorted to, and in a few cases where the disease was of a small artery it has been successful but it is also subject to the same objections on account of which these forms of treatment have been discarded as unsafe. There was formerly a plan of treatment which consisted in cutting down upon the tumor emptying the sac of its contents, and ligating the artery both at its entrance to and exit from the tumor. This operation commonly resulted in either death of the patient, either from the resulting inflamation or (as might be expected, in cases which were of spontaneous origin resulting from disease in the arterial coats) from secondary hemorrhage, the coats of the artery at the place of ligation being in such an abnormal condition as that when brought in apposition they would not adhere to each other leaving after the ulceration produced by the ligature a still pervious tracks.

The cause of the failure of this operation appears to have been noticed by Hunter who about a century ago first treated Aneurism by the application of a ligature - at a

distance from the disease - to the artery where it was still in a healthy condition. He supposed that in so doing he was preventing all access of blood to the part, the artery being destroyed, but later examinations have showed that the circulation through the legated artery is still maintained by the anastomosing branches, thus proving the fallacy of his theory, and the important fact that entire cessation of the flow through the diseased vessell is unnecessary, in order to work a cure. Sometimes, however, the collateral circulation is of so vigorous a nature as to cause the failure of this operation, because the blood within the sac is allowed no opportunity to coagulate. When from the situation of the part it is impossible with any just hope of success to apply the ligature between the heart and the tumor, and the disease is rapidly advancing to what - without the intervention of treatment - must be a fatal the operation of Brasdor may be resorted to with a slight hope of effecting a cure. It differs from the Hunterian method in that the ligature is applied at the distal side of the tumor. The consequence which follows this - as claimed by Guthrie - is not the coagulation of the blood but the cure is effected by "giving rise to inflamation in

the Aneurism and in the artery, both above and below the ligature and unless it does this it fails; it is therefore dangerous and uncertain. The attempt to control an Aneurism by ligation is at present resorted to when its location is such as that another method of procedure - yet to be described - is utterly inapplicable. This is, the interruption of the passage of blood through the diseased part by pressure above the tumor upon the artery leading to it. This operation was known and attempted long ago, but from the imperfect and violent manner in which it was performed - was so unsuccessful that it was abandoned. it has however been revived and is at present considered to be the safest and most promising known to the profession. Various plans and instruments have been devised for the application of this pressure. One is sometimes used a clamp of steel made to partially encircle the limb, with a pad at one extremity which can be screwed down upon the artery making any necessary amount of pressure. or Signoni's tourniquet or the common binders board so shaped as to envelope the limb except over the track of the artery which it is desired to compress over which a pad is placed and the ordinary tourniquet

applied around the whole. Compression of the artery by the fingers of assistants was first attempted - and with success - by Dr Donathan Knight; he cured a popliteal Aneurism in this manner after applying pressure for thirty six hours, which he thinks was longer than absolutely necessary. It being necessary in treating Aneurism by compression of the Artery to change the location of the pressure frequently, this form of operation - where a sufficient number of attendants can be secured - is exceedingly convenient. Pressure may be applied to an artery where it lies directly over a bone - as to the Femoral where it comes out over the brim of the pelvis - by placing upon it a weight - as for instance a bag of shot - which will by its gravity compress the artery and impede the flow through it. The consequences following any of these operations which are to be successful, are, a solidification of the tumor by the formation of a coagulum within it, rendering it hard and incompressible, and afterwards either a gradual removal of it by absorption, or the supervention of inflamation, resulting in the formation of an abscess which may be evacuated with entire safety. a cure following which will be permanent.

Subject of Dissertation.

Cholera Infantum, or Summer Complaint of Children.

American Physicians have the credit of giving the name Cholera Infantum to this disease, which has very properly been described as indigenous & peculiar to the United States. It is asserted that writers of other parts of the world have not reported any affection of the bowels & stomach from which young children have suffered, which resembles in all its characteristics, the Infantile Summer Complaint of this country; And we have reason to

believe that no disease of children has been so frequently & extensively prevalent, & so dreadfully fatal elsewhere. Doctor Wood has expressed the opinion that "this affection though probably not altogether unknown in Europe, is so rare as to have escaped the particular notice of writers". Considering its fatality & frequency, we can speak of it as one of the "peculiar institutions" of this country, from the evils of which we should rejoice to be free. It is considered one of the most destructive diseases, to which infants in the United States are exposed during the period of primary dentition. In Philadelphia, in 10 years from 1835 to 1844, inclusive, 2583 cases which terminated fatally, were reported, as having occurred among children under 5 years of age, being about 10 per cent of the deaths of children under that age, & about 5 per cent of the entire mortality.

It has occurred most commonly in the latter part of the second summer of childhood prevailing most extensively & terminating most fatally, in the larger & more densely peopled cities. Small cities have also been visited by its dreadful ravages, & it has occasionally, in country villages, given undoubted evidence of its unwelcome presence. Probably a greater part of the cases in the country towns or villages, have been in malarious districts, but it may occur in any locality. And although called a "Summer Complaint" it has been reported as having occurred in one of the Southern States in the winter. We therefore conclude that infants during the irritation of primary dentition, even though enjoying the comparatively pure air of the country, or though it may be in the cooler months, are yet liable to an attack of Cholera Infantum. It has been generally spoken of as

exclusively a disease of warm or hot weather, & has been limited by writers to Summer & Autumn, in the Eastern & Middle & Western States & to Spring, Summer & Autumn in the Southern States.

Nature of the Disease.

It is endemic, or epidemic, having been sometimes confined strictly to a certain locality, & at other times, prevailing in different parts of large cities, & attacking a large number of children at nearly the same time. Of the peculiarity of the emanation to which it can be attributed, (if properly to any), we have no positive knowledge. From the morbid appearances, & the prominent symptoms it is concluded that it essentially consists in inflammation & irritation of the mucous membrane of the alimentary canal, either with or without congestion of the liver. There is probably a specific poison which operates upon the mucous surfaces, in connection with other influences.

Why it prevails so frequently in our cities, & not in those of other countries we know not. In narrow streets, & ill-ventilated or non-ventilated apartments it is most fatal, acting as a destructive poison, which may carry the victim beyond the reach of antidotes or remedies, before the physician is consulted.

Causes.

The endemic causes before mentioned in some instances being continued thro, weeks of hot or warm weather, in connection with the enervating effects of heat, & the irritation of dentition, are predisposing, & improper food, changes of temperature, cool nights following the warm days, vitiated air & indigestion are exciting or proximate causes.

So also, Worms, change of diet, want of nutritious food, & excessive drinking, either by the child or mother, have been mentioned.

Symptoms.

Frequently the attack has been preceded by a loss of appetite, & impaired digestion. Vomiting is a characteristic & prominent symptom, being generally persistent, & sometimes in fatal cases, terminating rapidly. It continues almost to the end of life. In some cases the vomiting is attended with profuse diarrhoea, occurring simultaneously, or alternately. In other cases the diarrhoea has preceded the attack of vomiting. The matter dejected at first is commonly thin & watery, having but little color; in some cases the evacuations are very frequent & small, & in others copious, & frequent, being exceedingly various in character & quantity; perhaps more commonly tinged with green, or a yellowish color. They may be slimy, or turbid, or may contain undigested food, or be marked with bloody streaks. They do not generally have the ordinary smell of faces;

Convulsions have occurred, in

some instances.

There is generally more or less febrile excitement, which is frequently irregular, in some cases the pulse being frequent, & weak, in other cases frequent & full. There is great thirst, which is in some instances quite insatiable, & increased by indulgence. The mouth is dry, parched, & hot. The head & abdomen feel hot to the touch, & there is frequently evidence ~~of~~ of pain in the abdomen, & sometimes in the head also. In severe cases the emaciation is exceedingly rapid, the skin is in folds, hanging loosely, from loss of flesh, & relapation. In cases of less febrile excitement, the countenance is pallid, the features appear shrunken, the eyes ~~appear~~ large, brilliant, & intelligent, but if the child sleeps, there is a death-like appearance, from the excessive paleness & emaciation. The child sleeps with the eyes but partially closed, & in some cases may appear to be in an imperfect slumber.

There is commonly, if not always, great prostration, which may appear later in some cases, according to the constitution & temperament, & according to the greater or less violence of the disease. Skin or forehead in some instances is tight, & of a dingy hue. The tongue which at first had a slimy coat, of a light color, yellowish or white, becomes dark & dry, & in fatal cases nervous prostration is complete, brain is affected, insensibility & coma gradually or more rapidly developed, give evidence of a hopeless case.

The Duration of the disease varies greatly. From a few hours in which life may become extinct, to a series of weeks or months, after which under favorable circumstances, child may recover. After a desperate struggle, if the patient is sustained by proper care in the use of food & remedies.

Diagnosis.

This is not difficult. The vomiting is more persistent, & the diarrhoea is more profuse & obstinate, The distress in the intervals is also greater than in any other infantile disease which we are called to combat. There may be some cases of a milder form, which have symptoms intermediate between well-developed Cholera Infantum, & an ordinary case of gastro-enteritic irritation, or Cholera Infantum may follow an attack of simple irritation from dentition. The appearance & character of the faces is quite different usually.

Prognosis.

If the patient can be removed from impure air to a well-ventilated locality, & the diet be carefully restricted, a favorable prognosis can be given even in severe cases; Especially if the brain is not involved, there is hope.

A report of a case may not be uninteresting.

The patient was a boy of good constitution, but highly nervous temperament, living in the State of New York, in an agricultural district, in an isolated farm-house a mile from the neighbouring village, in what is called a healthy locality. His age was 15 months, & he had not been weaned. He had 3 months previously an attack of Intermittent Fever, & although an active, vigorous boy at the time of the attack of Cholera Infantum, it is popible that his nerves had not fully recovered from the effects of the fever. Had been considered well by his mother, excepting a slight diarrhoea. In the month of July he was severely attacked in the night, with copious evacuations from the bowels, soon followed by persistent vomiting.

A physician was sent for, but not being found, the writer of this, who was a student, was requested to attend the patient. From the report of symptoms of distress, with the other symptoms, I took with me some Morphine in doses of 1/8 of a grain, & also some prepared chalk & acetate of lead. The mother of the child had noticed that his sleep had been frequently disturbed by twitching of the arms & legs, & he had given evidence of pain waking & crying, before the attack of diarrhoea & vomiting. I found him purging & vomiting, with short intervals of great distress. Pulse 138 to 170 & a part of the time so frequent that I could not count it, a full, bounding pulse, head hot, skin moist, tongue covered with a yellowish coat, & nearly white, eyes bright & intelligent, but expressing alarm, & anxiety. Abdomen hot & tender, feet cool, urine suppressed.

Warm water was ordered for bathing the feet, & a dose of Sulph. Morphine 1/80 of a grain administered, but promptly ejected with increased vomiting. At this time some irritating matter was removed from the stomach which appeared like undigested food, though a small quantity. The second dose of Morphine was given & less vomiting followed, of slimy & watery fluid. Probably a part of the dose remained in the stomach. Castor Oil was given, followed by a powder of prepared chalk & acetate of lead, & the feet put in warm water, with cold water to the head, which continued excessively hot. Child became quiet for a short time was put in bed, feet were warm, & he was almost asleep, when he was seized with convulsions, severe & irregular. He was plunged in a warm bath, taken out very soon & wrapped in warm flannel.

The convulsions ceased, he was placed in bed, & was greatly relieved. Symptoms of nervous irritation continued. The morphine was continued once in 2 hours. The very frequent evacuations of the bowels continued but the vomiting did not return after the warm bath, & the cessation of the convulsions. The gums were examined & were found tender & inflamed, as they had been frequently during the two months previous. There were no teeth that appeared to indicate relief by the use of the lancet. Friction to the feet & hands was applied continuously, & cold water to the head. The powders of chalk & acetate of lead were continued, one to be given every 6 hours. The child was placed in a large well-ventilated room, was bathed twice a day, nursed regularly once in three hours, the appetite gradually returning, & the symptoms gradually improving, except the diarrhea which continued 4 months.

Frequently however the disease has overwhelmed the patient at the first attack, & removal to a locality more favorable for recovery has been impracticable; in some cases death has occured within 24 hours; Or if circumstances are unfavorable for recovery, as they frequently are in large cities, there may be an apparent arrest of disease, but soon relapsing again the patient becomes exhausted or the brain is affected, & death achieves the victory.

Post-Mortem Examinations have given evidence of inflammation of the stomach & bowels, & in some cases hepatic congestion. Commonly the redness has been observed in small patches in the stomach & small intestines, & enlarged mucous follicles have been discovered; The duodenum & jejunum have been reported as bearing marks of ulceration in some cases.

In some instances the liver is found discolored, & enlarged to an immense size. If the disease has advanced to what has been called the third stage attended with stupor & coma, the brain may be found in a state of disorganization & softening. Dr. Horner reported pus in the colon. The bladder has been found contracted & empty. Dr. Condie states that if the case terminates early paleness of the mucous coat, & congestion of the liver may be the only morbid appearances discoverable.

Treatment.

Several important points are indicated in the management of the disease. 1st Remove the exciting cause, expelling if possible all irritating matter from the bowels & stomach. 2nd If any cannot be removed, attempt to counteract their effect. 3d Diminish the nervous excitement & irritability.

4th Change & increase the secretions.
5th Apply counter irritants to the skin.
6th Diminish the excessive discharges.
7th Insist upon a change of air & of locality if possible.
8th Insist upon cleanliness, frequent bathing, good nursing, quiet, & good food.
1st to remove the exciting cause, as soon as the distressing vomiting can be checked give a cathartic sufficient to thoroughly evacuate the bowels, without irritating. Castor Oil, or Magnesia, are proper.
2nd to counteract the effect of irritating or offensive matter in the stomach- antacids should be given.
3rd to diminish nervous irritability opiates are recommended —
4th to change secretions, & act upon the liver, calomel may be cautiously used.
5th counter-irritation may be produced by friction or mustard, the mustard should not be used if the skin is hot.

6th to arrest excessive evacuations of the bowels give astringents according to the degree of relaxation. Acetate of lead, catechu, chalk, tannin &c.

5th A change of air & of locality are often important, & may decide the result. If a child can be taken from the city to the country, or to a part of the city where, good air with a full proportion of oxygen, & the unobstructed light of the sun's rays can be enjoyed, it may be the means of saving life.

8th Bathing, cleanliness & warmth of clothing, nutritious food given regularly, & all the minutiae of good nursing, are of great importance.

If there is not great exhaustion, leeches may be applied to the abdomen. Warm fomentations may give relief. Bathing in salt-water is recomended. Tonics in cases of debility or prostration.

The mouth should be examined, & the lancet used if necessary to give relief to the gums. Doctor Wood advises the use of castor oil in the form of an oleaginous mixture, made with gum arabic, loaf sugar, & mint or cinnamon water, & laudanum, in the advanced stage.

The Diet.

The best food for the infant not weaned is the milk of a healthy mother, which should not be given more frequently than once in 3 hours generally. Probably the best substitute for this is the milk of a new milch cow, which should be recent, diluted with two parts of water, & sweetened with loaf sugar. To allay excessive thirst cold water with a solution of some gum arabic can be given in small quantity. If the system is much enfeebled sustaining food should be given, & the appetite gratified cautiously, as it returns.

John Pitkin. Palmyra, N.Y. 1861.

Concussion of the Brain.

By

Horace, Philo, Porter

Concussion of the Brain may be defined to be a shaking together or jarring of that organ producing no apparent lesion of structure.

The Brain is enclosed in a bony cavity the shape of a flattened Oval the walls of which are some what elastic especially in the young subject. and it is evident that if any of the Diameters of this cavity are materially altered in length the Brain must suffer some violence.

When a blow or a fall is received directly upon the Head or indirectly through the [illegible] if not of sufficient violence to fracture the cranium the walls of this cavity undergo a certain number of vibrations by means of which its diameters are altered in length and the Brain suffers concussion. This may be of any degree producing simple momentary confusion of intellect or even death.

Concussion may be divided into three [illegible]

[illegible] Prostration Reaction and excessive Reaction. First in the first stage the Patient after receiving an injury upon the head is found lying motionless and unconcious insensibility is However not complete if He be spoken to in a loud voice the Brain will perceive it and if the concussion is slight he may [illegible] Monosylable Pain will be manifested by pinching the skin or by tickling the soles of the feet. The Pupils of the eye are some times dilated or one dilated and the other contracted or they may be natural Respiration is low feeble and sighing the pulse is rapid small and fluttering the skin is pale shrunken and covered with a cold clammy sweet. The patient may main in this state for an indefinite length of time generally but a few Hours and die of syncope or hoarse and vomiting come on and the disease passes in to the second stage that of Reaction. In this stage the pulse diminishes in frequency and increases in strength

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Respiration is more easy and normal the surface becomes warm the functions of the Brain are restored to their natural state (with the exception of a little dullness of intellect for a day or two) and diseased action be arrested here or it may cross the bounds of Health and inflamatory symptoms come on such as severe pain in the Head a Hot skin a rapid hard pulse the eyes bloodshot rotherness and [illegible] and all of the symptoms of Inflamation of the brain or its membranes manifest themselves.

Diagnosis. The Injury most likely to be confounded with concussion is compression of the Brain in compression the insensibility is more complete The Brain cannot respond to stimulus applied to any of the organs of special [illegible].

The loudest [illegible] are not heard [illegible] applied to the nostrils produce no uneasiness on the part of the Patient the limbs are not drawn up when pinched the Pupils are largely dilated and in this injury there is a bloated appearance different from the shrunken skin of those suffering from [illegible]

Palsy of some part may be and often is present we may have Involuntary discharges of Faeces from palsy of the Sphincter and Retention of urine from palsy of the muscular coat of the Bladder and Stertorous breathing f[illegible] about the soft Pallet. These are the prominent [illegible]ptoms of well marked [illegible] the symptoms of both injuries are so mingled together that it is difficult to distinguish which are most prominent in quite a large number of cases the symptoms of compression come on after those of [illegible] vessel has bee rupture within the cavity of the cranium after reaction following the stage of Prostration in concussion the [illegible] rapidly through the Arteries Hemorrhage occurs within the skull which soon adds a prominent [illegible] to the [illegible].

Prognosis if the case is to terminate fatally death will take place either in the first stage or the last in the first as before mentioned from syncope or in the last from inflamation or

some of its consequences. In some cases after the Inflammatory symptoms have been subdued the Patient recovers with paralysis of a limb a morbid deafness in one or both ears dullness of Intellect &c and many other derangements of the nervous system all of which may be permanent or transient quite often occurs.

Postmortem Appearances if the case have been one of simple Concussion [illegible] and the Patient died in the first stage there will be no signs of injury whatever. But in most cases which are diagnosed and treated as Concussion the Brain will be found to be [illegible] lacerated or Perhaps Echimosed on some part of its surface presenting a bruised appearance. If the Patient dies [illegible] the effects of inflammation of this organ [illegible] may have any of the appearances resulting from this disease.

Treatment this differs in the different stages in the first stage Patient [illegible]

[illegible] supported with pillows. He should then be carefully examined to see if any other injuries are present if a dislocation or fracture is found they should be immediately remedied while [illegible]

[illegible]

[illegible] uses from his stupor he may not find a swollen and distorted [illegible] which would a communication to the third stage (that of inflamation) and a disgrace to the surgeon. Little medication is required in this stage. Cold may be applied to the head dry warmth to the surface and dry friction to the extremities. If syncope is threatened a little warm wine may be introduced in to the stomach great care being taken that none of the fluid get into the trachea if this does not [illegible] a little [illegible] may be [illegible] into the

vectum some of the volatile alkali applied to the nostrils at the same time remembering the danger of setting up inflamation of their lineing membrane. And as a last resort artificial respiration may be tried. With these means we may expect to carry the patient through the first stage in a large proportion of cases.

When reaction commences we should withdraw our stimulants as they would now only tend to increase the liability of inflamation. The patient should be allowed to remain as quiet as possible in a cool airy and darkened room exposed to no unnessisary noise and in some cases a mild laxative given. The surgeon can now wait the father progress of events as any disturbeing medication at this time is contraindicated.

If he gradually [illegible] without [illegible] action [illegible] into the third [illegible]

should be restrained from all disturbing influences whether mental moral or Physical for some time after he is apparently well.

If the disease which in the second stage crossing the bounds of Health and inflamation is set up in the Brain or its membranes then a more active course of treatment than any before mentioned in this treatise will be required Could should be more assiduously applied to the Head either by evaorating lotions irrigations or Bladders of ice the hair should be shaved off that the remedy may be more efficient Bleeding either general Local or sometimes both will be required in allmost all cases followed by some active Cathartic after the opperation of this we may commence giveing calomel in small doses and frequently repeated opium guarded By Tr Emetic is a valuable remedy but should be carefully

watched Acconit has it is said succeeded well in the hands of some practitioners but I do not think we had better be to hatey in giveing up the valder plan of Treatment Stimulants of all description should be ridgidly withheld from the Patient and could diluent drinks substituted in their place.

The Diet should be of the lighest kind consisting of simple Gruels Gum water arrow Root &c If the Symptoms begin to mittigate we should gradully withdraw our antiphlogistics but not do so suddenly. As the Patient gradually recovers care should be taken to prevent ~~the~~ ~~patient~~ Him from exercising his mental Faculties by talking or worrying about his business affairs and he should be told and if possible made to believe that his head is his weakest part and if he trifles with it now he does it at his peril.

If coma comes on during the inflamitory stage caused by affusion the head should be covered

a large blister and all of the secreating and excreating organs set rapidly at work by diuretics diaphoretics and Hydragogue Cathartics.

If Paralasis of a limb is left it may be treated By cupps or sacks to the spine over the origin of the nerves supplying the part affected these followed by Blistering and daily friction, and also passive motion of the limb applied in such a manner that all of the muscles may be brought into action

in all cases where there is no inflamation acting as a cause of the Palsy Strichnine may be tried it may be given in Pill or solution or applied to a blistered surface

The deafness and amaurosis following this disease are to be treated upon general principles They are generally obstinate if of long standing

The Physician's Study and Reward.

We leave dollars and cents out of the question. The Physician as well as any body else, who is honorably is worthy of his hire. And for Yourself need be told how much a thing will pay: The deficiency and lack of stimulus lie altogether on the side of the pursuit of real and substantial gain and personal benefit. The remuneration we receive at the hands of our patients for our service ought, with due allowance, to be made a measure only of our advancement in our chosen profession.

The Physician above all men, as it seems to me, may make every thing of value in science and art, conducive to his personal welfare and happiness. And there is nothing selfish, in the desire we have to grow in knowledge and in the extent of the influence we have over our fellow men, for their good, in the usual acceptation of the term, Selfish; A man must first cultivate his own powers and train well the faculties which God has given him, before

he is fitted to teach and direct others.
But who can desire a position better than the Physician has to impart information or who if he be intelligent and honest will be sooner needed. The commanding position for study and observation is worthy of note. What a revenue of great truths deciphered by the master minds of the age and past ages as respects mind and matter, and their relations. Hidden to most minds, seem to flow in on all sides it would seem for the special contemplation and improvement of the Doctor of Medicine, whose business lies so extensively in endeavoring to equalize the over-stimulation or deficient action of either, in his daily rounds of practice.
It is in his power to test, in his intercourse with mankind, very many facts which others must take at second hand. And thus through studious revision and careful observation he is competent for his position and highly judicious.
The consciousness of which is a reward not

reckoned by the perishableness of earth. We are brought into this world in an ignorant and helpless state. Gradually, we learn by personal experience and observation our relations to the things about us. And from others, who are older, much that they have gathered from a longer intercourse and more advantageous circumstances. Soon we acquire by piece-meal, we hardly know where or how, sufficient to guide us safely along provided all is well — and here most of mankind stop and give up the pursuit — but let a gale of disaster arise and blow upon us and we are upset at once, and were it not that thinking men, and observing men, analyzed and scrutinized the nature of various diseases, their causes, symptoms, and treatment what despondency and gloom would the stroke of disease, stern enough readily opposed as it is, cast upon the hearts of men if left without restraint. But the knowledge of this success-full warfare embodies an acquaintance

with the principal sciences of Natural and Mental Philosophy.

Chemistry has opened a flood of light upon many dark and obscure subjects in medical practice. When once we know the simple fact we seem now to know the why and how. — At all events we have pushed back the boundaries of our ignorance and victories gained by mind and truth on the confines of ignorance are richer in reward than victories in gold. The accuracy in chemical science is truly amazing. The long list of statistics in State documents every year show the weight law gives to the testimony of the chemist in toxicological and other poisonings. It teaches the character, properties and preparation of the most useful, powerful hands, and dangerous in the unlettered, of medicinal agents. In fact it has given us agents in form, at least, wholly different and superior to their primitive form of administration: such as Morphia and Quinia,

in which the power is concentrated, and thus a vast number of compounds which exist in a pure state only when prepared artificially. It moreover serves us a clue, in its general principle of action and reaction among agents, to the secret causes of many lurking diseases and epidemics. Such in general is the exactness of one branch of science, which falls often under the inspection of the consultant Physician. All the collateral sciences evidently give assistance to the medical practitioner who must needs be if successful a very practical man and able to give a reason for the method he adopts, the truth that is in him. He must study the laws of mind as well as matter look at the motives which influence mankind, and avail himself of every avenue to touch the better feelings of the desponding and afflicted patient. Aim to inspire hope and good resolution in rooms of converting a patient into a Pharmaceutical shop, under the impression that at-

but we must of course hit upon something in the treatment to the purpose. Men live in this 19th century with too eager a hold upon their earthly possessions and pursuits caring little for the true culture of their higher faculties, and their more uniform developements of their powers of mind and body.

It is all money, money, with many a man who still under this fever of excitement with broken constitution and enervated power cries out to his medical attendant for immediate succor and relief. What will medicine alone avail; except to soothe and calm the racking, fever hot, brain and afford opportunity for their recuperative energies of nature to do their best for the fool hearted or insane man

Good sound advice given with decision and earnest rebuke it may be, will release us from implication and perhaps be heeded and save what remains for further usefulness with al do no harm where active treatment with

drugs would.

But to sum up in brief the life of a medical practitioner as it appears to one who knows nothing from personal experience and little from observation I feel bound to say I assuredly believe it affords the highest opportunity for mental discipline when pursued in full and yields accordingly the largest reward. Again, aside from the acumen of intellect we acquire from the abstruse reason often summoned forth in the discussion of its questions, we meet so often the sorrowing and distressed and interchange salutations of cheer and comfort so constantly the discipline our sensibilities are subjected to is no less thorough and radical, than that of our reasoning faculties, or may be subjected to and be benefitted by — far be it from me to believe this is by any means really the case in the majority of cases, any more than I believe that the instances of Physicians

constantly adding to their stock of useful knowledge with untiring zeal are at all numerous.

The Physician like many others out of the profession are naturally predisposed to inactivity, and no stimulants that the Pharmacopias possess are capable of arousing them from this torpid state and so little is accomplished.

George Rice

New Haven
Jan. 10th 1861.

Wounds.

A wound may be defined to be, a recent solution of continuity of the soft parts, suddenly occasioned by external causes, and generally attended at first, with haemorrhage.

Wounds are variously classified; I shall pursue the same mode of classification that is pursued by the Illustrious Professor of Surgery in this Institution. By him they are divided into four general classes, viz.

1st Simple Incised Wounds.

2nd Contused and Lacerated Wounds.

3rd Punctured Wounds.

4th Complicated wounds.

These in their turn are subject to many subdivisions a few of which I shall briefly notice. I shall treat of each class separately and in the order in which they naturally arrange themselves, and first of

Simple Incised Wounds.

These wounds are produced by some clean cutting instrument, passing more or less deeply into the parts, and wounding the various tissues according to the depth and situation of the wound.

Of the Treatment of Simple Incised Wounds.

The main object in the treatment of these wounds is to produce a union of all the divided parts without having to go through all the various stages of inflammation, suppuration, and granulation; In order to do this you are in the first place to produce a cessation of the haemorrhage, by one of the various methods for that purpose; by the ligature, by the application pressure, or some of the various styptics, as for example the alum or what is of more efficacy the muriate salt. In many case the simple exposure of the wound to the air for a short time will cause the flow of blood to cease. In the second place remove all foreign bodies from the wound In a simple incised wound you will commonly have nothing else in the wound, but masses of coagulated blood these should all be removed, as they would only irritate the wound, and lead to the production of inflammation

if allowed to remain. The finger is the best instrument for the removal of these coagula from a wound; they are to be removed by inserting the finger into the bottom of the wound and throwing them out.

After the hæmorrhage has ceased, and the wound is cleansed of all foreign matters, the lips of the wound are to be brought carefully together, and retained by the use of sutures, adhesive straps and bandages & compresses of necessary. Time will not permit me to go into detail in regard to the various kinds of sutures, and bandages that are and have been employed. Proper attention should be paid to the position of the wounded part, and muscles are to be relaxed, and the part so supported that the influence of gravitation be counteracted.

The general treatment should be such as to prevent inflammation, or subdue it if it go beyond its proper limit. The antiphlogistic regimen is to be pursued more or less rigidly according to the extent and position of the wound. The bowels are to be kept moderately loose and the state of the digestive system is to be attended to. Next proceed the surgical

and first of Contused Wounds. These are wounds in which the tissues are destroyed the skin remaining entire; as for example a great shock by a blow will ordinarily produce great extravasation of blood without a rupture of the skin. In these wounds a tumor will ordinarily form, sometimes suddenly from the rupture of a vessel of some size, but more commonly the tumor is formed more slowly from the gradual effusion of fluids into the cellular tissue in the immediate vicinity of the injury. The tumor thus formed may be soft and boggy to the feel, or it may be solid; if not solid it will ultimately become so. These wounds are always followed with a greater or less degree of Inflammation, the severity of the inflamatory symptoms will depend upon the extent of the contusion. These tumors are never to be opened for the purpose of evacuating their contents, as inflamation will certainly come on and involve the whole cavity.

The Treatment for Contused Wounds is in the first place to check the extravasa-

tion of blood, by the application of cooling lotions or a purgative mixture. Inflammation is to be combatted by the local abstraction of blood; by the application of cold and moisture, a warm and moisture if the patient prefer, rest and a low diet. No active treatment is necessary unless the contusion is of large extent. Speak next of contusion with laceration, in this form of wound the hæmorrhage is usually slight for the reason that when blood vessels are torn asunder they bleed less than when they are cleanly incised.

The treatment of this form of wound is quite simple, the first indication is to stop the hæmorrhage by the ordinary means, secondly you are to remove all foreign bodies; very often portions of the material inflicting the injury are left in the wound, as for example a large stone falling upon and crushing a limb, small particles of stone will be left in the wound, these must be carefully removed. The fingers are the best instruments for removing foreign bodies from a wound, they may be assisted if necessary by various instruments.

Portions of cellular tissue; tendons that have been stripped up from their attachments may be removed if their vitality be impaired.

After the wound has been cleansed of all irritating matters, and the haemorrhage has ceased, the lips of the wound are to be brought accurately and carefully together; for although the whole of the wound may not unite by the first intention, we may at least expect some portions will do so. Those portions of the wound that do not unite by the first intention will ultimately heal by suppuration and granulation, constituting union by the second intention. Little need be said of the constitutional treatment; beyond remedying any irregularities that exist may show themselves during the progress of the cure.

Sometimes a portion of the body is entirely removed by violence of some sort. Here if the removed portion have not lost its vitality it may be cleansed & replaced in its original position, being retained there by appropriate dressings.

If the removed portion have lost its

vitality you will have an open wound to treat, which you may heal by one of two methods 1st of the modelling process, the wound being kept moist, by the application of cloths wet in water ~~kept~~ constantly to the wound, in this manner the wound will heal in a short time without suppuration taking place.

The second mode of healing a wound without suppuration is by the dry method, here you are to allow the blood to form on the wound and form a scab, under the protection of which the wound heals kindly.

In connection with Contused and Lacerated Wounds I shall speak of Gun Shot wounds, defining them to be wounds produced by the discharge or bursting of firearms—

The injury is always followed by great constitutional disturbance, more or less severe, according to the nature and extent of the injury; All the symptoms of violent shock to the nervous system are present.

The amount of hæmorrhage will depend upon the size of the vessel wounded, when a wound is first

inflicted there is ordinarily a haemorrhage of a bright arterial hue, which subsides in a short time. When a ball enters the body it may pass straight through the body, or it may pass in a very devious direction, being very easily turned from its course by any very slight obstacle. Instances are stated where a ball has entered the side and instead of passing straight through the body has followed the course of the Diaphragm & passed out. "Doctor Hennen states a case where an officer was struck by a ball on the pomum Adami and passed entirely around the neck and was lodged in the orifice where it entered." It is always important to determine whether a ball has lodged in the body or has passed out; a ball lodging near a large artery might excite an inflamation of the parts, the artery becoming involved the patient might lose an inconvenient quantity of blood. Occasionally a ball passes into the body and becomes encysted, where it may remain for a great length of time, without causing any inconvenient symptoms.

Gun Shot wounds are generally complicated with foreign bodies; portions of clothing may be driven in before the ball, and lodged in the bottom of the wound and keep up suppuration for a long time. The wadding of the gun may enter and constitute a foreign body.

Spent balls always produce very severe injury; extensive contusion of the soft parts, fracture of bone, laceration of nerves and vessels may be produced by a spent ball without any external indication, except from the violence of the constitutional symptoms

Small shot discharged from a gun or pistol, produce a greater or less degree of injury according to the distance at which they strike; if the distance be great, very little injury will be produced, the shot scatter and enter singly and lodge in the skin or subcutaneous cellular tissue, from whence they may be picked out or they will come out in the course of the suppuration.

Very different will be the case if a charge of

shot enter the body "en masse", here the wound will be of much greater extent and the consequences will be infinitely more serious. Mortification may come on as a result of a Gun shot injury. Special care is to be taken to guard against secondary haemorrhage, between the 10th & the 14th day.

Of the Treatment for Gun shot Wounds. If the wound be made by a ball passing through a fleshy portion, little need be done beyond sponging the part clean and applying a bit of lint to the wound. The nervous symptoms are to be quieted by a cordial, or an opiate if severe. After Inflamation has set in the primary dressings are to be removed, and a warm poultice is to be applied to the part. Care is to be taken to prevent the formation of sinuses, by allowing a free exit to the pus. The Constitutional treatment must be of the Anti-phlogistic sort; if the Inflamation be too violent Venesection may have to be resorted to. In Compound wounds of this sort, all foreign bodies are to be removed, the Haemorhage is to be stayed, and the wound treated in the same manner as a lacerated & contused wound.

Time will not allow of my going into the details regarding Amputation in Gun shot wounds, as the subject itself would furnish material enough for quite a lengthy paper; if the subject were discussed in all its bearings.

Punctured Wounds.

Wounds of this class are by far the most dangerous which the Surgeon has to treat, because from their depth they are liable to injure important parts; as bloodvessels, nerves, or even the vital organs themselves. They are caused by a cutting instrument of some sort passing more or less deeply into the tissues. Of the treatment. The haemorrhage is to be stopped, and the part put into such a position as will relax all muscles & the lips of the wound are to be brought together and retained by compress and bandages of a particular form. If pus is formed the case is to be treated as a deep seated abcess—

Complicated wounds are those in which some peculiar lesion is mingled, requiring some special more treatment. Wounds of the Throat, Thorax and Abdomen fall under this head and first of wounds of the Throat.

Wounds of this sort are ordinarily inflicted for suicidal purposes; they are the more dangerous

according as they are made low down on the neck or high up under the chin. Situated in the neck we have very important parts, which are ordinarily more or less injured. An incision made across the neck must be apt to injure some or all of the following parts, viz: The skin and subcutaneous cellular tissue, the Platysma myoides muscle, the Sterno Cleido Mastoideus muscle, the small ribbon like muscle passing from the Shoulder and Sternum to the Hyoid bone; the Thyroid gland may be wounded, and the Larynx & Trachea may be cut into. Along with this extensive wound of the soft parts, the vessels of the neck may be wounded, the small thyroid arteries and the numerous small muscular branches. The great superficial veins of the neck may be cut into or divided. The Carotid artery usually escapes both from its situation, and the manner in which the ~~instrument~~ incision is made. Here from this extensive division of muscles, the wound will present a wide gaping appearance, the edges of the wound being separated by the retraction of the divided ends of the muscles.

Of the treatment for wounds of the throat.

The first thing to be done is to secure any bleeding vessel by ligature or otherwise. All foreign bodies, coagulum and everything that does not belong to the part is to be removed. If the trachea be cut a suture may have to be used, it should be carried only through the cellular tissue on outside of the tube, if carried into the trachea it would produce great irritation. After the haemorrhage has ceased & the wound thoroughly cleansed the lips of the wound are to be approximated as near as possible by mercurably placing the head upon the chest. The head should be fixed in this position by a roller bandage carried in many directions. Sutures are inadmissable, so also are adhesive straps. The after treatment is very simple, confining the patient to a liquid diet, the avoidance of all excitement, and the moderate observance of the antiphlogistic regimen.

Of Wounds of the thorax.

In a penetrating wound of the thorax it is exceedingly rare that the lung is not wounded. If the chest is penetrated and the lung not wounded the treatment will be exceedingly simple, unless air has

entered the chest. The haemorrhage is to be stayed, the wound closed, and the patient placed upon the affected side. All bad symptoms arising are to be treated in the ordinary manner. If the lung is wounded, a peculiar train of symptoms will be attendant upon the injury; expectoration of blood mixed with air, difficulty of respiration, cough and all the symptoms of great irritation. ~~The haemor~~ Treatment, the haemorrhage is to be stopped by free haemesections, repeated as often as the haemorrhage shall recur. The wound should be closed, and the patient placed upon the wounded side, that all effused fluids may flow out of the wound. The antiphlogistic regimen is to be carried to its full extent. The diet is to be rigorously light. The attendant accidents upon wounds of the Thorax & lungs, as Emphysema, Hydrothorax &c &c are to be treated according to the rules laid down in the books.

I speak in conclusion of wounds of the Abdomen. In this form of wounds the liability to peritoneal inflammation is very great owing to the great mobility of the parts.

wounds of the abdomen are divided into a great variety of classes, and are to be treated as circumstances require and the judgement of the Surgeon recommends. The general indications in the treatment are to stop the haemorrhage, return protruded intestine, bring the lips of the wound together, and retain by appropriate dressings. Inflamation is to be combatted in the ordinary manner, by bloodletting, rest low diet, and the strict observance of the antiphlogistic regimen.

The Prognosis in wounds of the Thorax and abdomen is to be extremely guarded.

Leo Arnard
Rushville
Illinois

1861.

Causes of Disease

The causes of disease are usually arranged under three heads viz. predisposing exciting and proximate

The last of these or the proximate is the condition of the parts upon which certain morbid phenomena flow or in other words it is the disease itself

The predisposing cause is the cause which is acting on the system producing a pre-

disposition to disease. The cause which is acting on the system is the predisposing cause the condition of the system which is induced by the cause is the predisposition

The exciting cause which lights up disease in the system whether it has been under the influence of a predisposing cause or not

It is often hard to tell if a cause whether it an exciting or predisposing cause whether it has prepared the system to be acted on by some other cause or whether it has caused the disease itself but usually the distinction is sufficiently well marked and real as to be distinguishing.

Disease is often pronounced when

no cause can be discovered the probability is that there is a cause although it is beyond our power to find it out

It is very necessary to know the cause of disease for by knowing the cause we may be able to prevent disease & find to cure those which would be incurable if the cause were suffered to act

The causes of disease are very numerous too numerous to be mentioned in addition of this kind Among some of the known causes are those changes in the condition of the atmosphere ~~from~~ that condition which is known to be necessary to health Among these are extreme of heat & cold sudden variations of temperature excessive moisture & excessive dryness &c.

The range of temperature consistent with human life is considerable its limits are supposed to be those extremes of heat & cold which are found on the different parts of the Globe which which are inhabited by man or some parts of the earth which is thickly inhabited the temperature ranges from 80 to 110 or 120° Fahrenheit while in others it as low as from 40 to 60° below zero. But the human body is capable of sustaining a much higher degree of temperature under certain circumstances for a short length of time a degree of heat so high as from 350 to 385° F. has often been endured without serious inconvenience and Dr. Dunglison speaks of Chabert who entered an oven the temperature of which was from 400 to 600° F without any serious consequences.

The application of a cold degree of heat stimulates the organic functions as it known by the acceleration of the action of the heart when the application of a high degree of temperature had been made

It had a secretion effect on the mucous system as it seen in the lungs + bladder which it produced

It promotes cutaneous perspiration also the secretion of the kidneys liver besides changing the sensible qualities of the bile which is often followed by inflammation of the organ itself

In this case the predisposing cause is the application of heat the exciting the application of cold and the condition of the glands which give rise to the symptoms of hepatitis is what is called the proximate cause

Heat also acts an exciting cause of disease as in sun-stroke in which persons are attacked suddenly falling down insensible & often dying in a short time

It also produces cutaneous diseases such as the prickly heat with which people are afflicted who remove from temperate to torrid zones

The effects of cold in most respects directly the opposite of heat it acts as a sedative on the organic functions as is seen in the shrinking of the external parts the superficial vessels being unable to transmit the usual amount of blood for that reason the skin becomes pale & contracts around the sebaceous gland & hair bulbs making the skin have the appearance of the skin of a plucked Goose which is

called cutis anserina

~~As~~ cold is a bad conductor of heat As the atmosphere is a bad conductor of heat to judge of the effects of coldness of the air we we must take the atmosphere at a state of rest when the air is quiet the hands may remain uncovered for some time with the thermometer so low as 5-5-1 below zero while if there be a breeze they cannot remain uncovered the same length of time without considerable pain One of the first effect-seven cold on the system is drowsiness or torpor & those subjected to its influence have a strong inclination to lie down & sleep although they know that to sleep is to die. In many instances before complet torpor comes on it blunts the sensibilities & dulls the intellect giving the person

the appearance of being intoxicated

The effects of cold within certain limits & under certain circumstances instead of proving a sedative acts directly as a tonic that is when the application of cold is not too severe or long continued but that body reacts it invigorates & strengthens both the mind & body

The conditions which favor the tonic effects of cold relate to the condition of the body itself & the manner in in which it is applied

The warm blooded animals have the power of evolving heat & if this power of evolving heat be in any way impaired so that body suffers from the cold it would be injurious or if it be applied when the body is cooling after being heated but if it be applied when the body is warm it kept warm

by exercise or otherwise no injurious consequences will follow

The bad effects of cold depend partly on the intensity & partly on the duration of the sensation

Cold is more likely to prove injurious when applied by a current of cold more so when accompanied by wetness

The sensation which are produced by the application of cold acts a measure by which we may judge of its injurious consequences In maniacs when the sensibility of the body is greatly are not apt to be affected by cold like people whose sensibilities are not blunted also the power of habit has much to do with it

In warm weather diseases of the stomach & intestines are more seen than in cold. Those of the mucous membranes are passages are more

seven than in warm

Impurity of air without any specific poison has a very bare influence on the system laboring under disease although it is not probably the cause of disease

Another cause of which the atmosphere is a vehicle is malaria of this very little is known except by its noxious influence in the production of intermittent & remittent fever

But two things are necessary to the production of malaria i.e. a certain degree of temperature and moisture

Contagion may also be classed among the causes of disease

Contagion consists of some ~~poss~~ ~~specific~~ animal poison which emanates from a person afflicted with certain diseases & coming in contact with a healthy person produces disease in him

And a great many more

causes of disease & among them are
is intemperance in eating & drinking
~~the~~ various trades & avocations ~~the~~ mineral
poisons too much & too little exercise
too much sleep & a want of it.
also those diseases which are hereditary
& those which arise from original
malformation of which I shall not
speak

Hospital Management.

I select this subject for a Thesis, Gentlemen for several reasons, & 1st, because my attention has been especially directed in this channel, & 2nd because I believe there is very great room for improvement in the management of some of the American Hospitals: & 3rd because there is no class of people that tend to modify an ever, as the Medical Profession. to the amelioration of the condition of the sick & the poor—

However widely men may differ in opinion respecting therapeutical agents, or the importance of pathological Anatomy, no one can doubt the positive utility of that branch of medicine, de nominated

Hygiene, at no period in the ~~in the~~ history of medicine, have its claims been wholly disputed or its importance ignored —
In a house devoted especially to the sick, where are congregated many individuals with different disorders, too much importance cannot be paid to the Hygienic condition of the same. —
No Hospital can be considered complete without an ample supply of Furniture for the comfort of the sick.
I believe a great want would be supplied if a more liberal amount of bed & body linen were furnished, so that each patient may be kept perfectly neat, thereby giving great comfort to the suffering poor.

So much attention cannot be
given to keeping the corridors
& wards perfectly clean—
It is the boast of Englands
that the interior of her Hospitals
is a model for the world, &
I believe so for, no nation is
ahead of her in this particular
A constant supply of pure
air, circulating freely through
each hall, & ward should be
maintained. —
It is frequently the whim of
a patient— & I regret to say
of some that should know
better that night air is
more injurious than that
of the day. Never should a
stream of air be allowed to
flow directly upon the patient,
By the use of shutters or
screens can the draft be

regulated, Every room, directly over its door should have a window, swinging upon pivots, By this means the Hall, or passageway will carry off much foul effluvia. Let there be a free supply of water, thereby insuring a great advantage in the treatment of disease,
Paint & whitewash are very cheap, & properly applied do much to give an institution a good name, & insure as against the lurking of contagion in smoked & dirty walls, No carpeting of any kind should lie upon the floors of a Hospital They prove too good places for disease to lurk in & frequently becoming very filthy. —

No patient should be allowed
the to occupy the room of
another who is lodging
under a contagious disease,
A sick person, whose vital
power is greatly reduced, is
much more liable to be
injured with the disease of
another, than an individu-
al in health, This fact
should always be borne
in mind in the classification
of Hospital patients. —
Great care should be exercised
in the selection of proper
nurses, that they possess tact,
judgment, & skill is of the
first importance. —
And they should know their
duty, & do it, I do not believe
it judicious that a common
nurse should have charge of

the patients medicine, neither should the Apothecary be granted the most varied attributes; always present in the Hospital he makes up by his regular visits the too infrequent ones of the physician; & in their absence orders medicines, modifies prescriptions & thereby becomes in fact the most important officer on the medical Staff.

This liberty is not unattended with danger — —

The attending physicians orders should be scrupulously obeyed. To him, & him alone should ~~there~~ belong the right of the management of each case — His visits therefore should be often, & faithfully should he see to his duty.

Patients laboring under critical diseases should have throughout the night, as well as by day constant attendance.—
Very many patients will recover if properly attended to, while neglect, even for a brief period may produce disastrous results.—
The food should vary, as the patients condition may demand, An individual with some slight local trouble should surely not be fed like one with a high fever or injury of brain.—
It does not look judicious to have a regular bill of fare, as for a Hotel, but that the diet may be under the charge of the Medical officer as much as the Medical treatment

There is one article that should be used more than it is in any Hospital, I refer to beef juice. By cutting a piece of beefsteak into small pieces & placing them in a bottle corking it tightly, & immersing it in boiling water for about 30 minutes, when the juice can be poured off & seasoned, This broth is far more nutritious than any other broth Brown & will prove far safer than wine or brandy in many cases where a gentle stimulant is only needed —
The inmates of a Hospital should feel that they are with friends; those who delight to do them good —
The convalescent should

have amusement as well as Medical treatment. This should not be of an exciting nature, but just enough to give diversion & pleasure to those who have long suffered with pain. —

The indiscriminate admission of visitors into the rooms of the sick is an evil, & especially so where the patient imperitively needs perfect rest & quietness. Has not the patient some rights, & is it not ~~it~~ due him that he be not unnecessarily disturbed. 2

A Chapell should form a part of every Hospital. Here should be congregated every sabbath those who

are able to withstand the fatigue without injury. The periodical return of these occasions gives an order and system to the movements of the house. Their solemnity impresses the patients with a proper veneration that cannot but have a salutary influence on their hearts as well as heath.—

Varicocele

is the subject on which I purpose to offer a few remarks. This affection is of more frequent occurrence than is generally supposed. But, owing to the peculiar delicacy which patients usually have, when any of the organs of generations are disordered, the physician is not consulted until necessity or the fear of consequences compel them to do so.

Though this disease is followed by no fatal consequences, yet it is always of a troublesome nature and at times tender and painful, frequently attended with such a degree of anxiety and mental depression, the patient fancying that he does not possess those characteristics which distinguish the man from a class of beings who have no feelings in common with him or sympathy for the other sex, that it is well worthy the attention of the physician.

By the term varicocele is meant an enlargement of

the spermatic veins and an alteration in their structure. The veins of the spermatic cord are more frequently subject to morbid alteration and enlargement than the veins of any other part of the body. Owing probably to their suspended position and the disproportion which exists between them and the arteries. This alteration sometimes includes both sides, but more frequently only one side is implicated. The left side is more frequently affected than the right. though there have been cases in which the enlargement was confined entirely to the right spermatic veins. One cause for its more frequent occurrence on the left side, as given by Sir Astley Cooper, is that the course of the left spermatic vein terminates nearly at right angles with the renal vein, and this terminates nearly at right angles with the course of the blood in the ascending vena Cava. On the right side the blood meets with no such obstruction

in its course. The left renal vein is also ex-
posed to the pressure of the viscera, as it
passes over the aorta.

Varicocele is more
distinct and troublesome in summer than
in winter. In cold weather all the super-
ficial veins are more contracted, and the
scrotum corrugated; thereby affording a great-
er degree of support to its contents than in
warm weather. For the reason that cold pro-
duces a contractile effect upon the vessels
near the surface, cold applications have
been advised as a remedy. Its efficacy
will be considered hereafter.
When the veins become thickened and en-
larged, the edges of the valves no longer
come in contact, and consequently, no ob-
struction being offered to the reflux of
the blood, there is a constant tendency of
the tumour to increase.

Some of the predisposing
causes of this disease have already been pointed

out in the anatomical relation of the parts. In fact, anything which obstructs the return of blood may be enumerated as a cause of the disease, as corpulence, constipation, tight belts around the abdomen, &c. Bubonocele is said sometimes to appear spontaneously. This is probably true of many cases, but it is more frequently the consequence of local violence, as of a kick, blow, or injury of any kind.

Symptoms. The attention of the patient is first directed to the part affected by a sense of uneasiness and weight along the course of the spermatic cord, a sense of weakness in the back, and the relaxed and pendulous appearance of the scrotum. At this stage of the affection it gives the patient but little uneasiness, and does not prevent him from following his ordinary occupation. After any extra exertion, however, as lifting heavy bodies, riding on horseback, or from fatigue, a dull & disagreeable pain is felt within the scrotum,

along the course of the spermatic cord, and in the loins. If at this period the patient examines the tumour, he finds an irregular mass of convoluted veins which are tender to the touch, of pyramidal form with the apex upwards and the testicle constituting it base. It is said sometimes, to be shaped like a double cone, the testicle making a common base. When the patient is in a recumbent position, the tumour nearly disappears, but returns when he is erect. In some cases (and in most cases of the disease has continued for any considerable length of time) there is a continual and increased pain in the part and the loins, an increased feeling of weight which prompts the patient to support the tumour with his hand, or by making a temporary bandage of his kerchief, and to change often its position. The testicle itself wastes or is absorbed, and in addition to the local suffering, there is more or less mental depression. At this period

the patient seeks relief from the Sur-
-geon.

Diagnosis— The only complaint with which
Varicocele can be confounded is Hernia
- But it is so different that it would scarce-
-ly seem credible that an intelligent Prac-
-titioner would mistake it, yet it has been
mistaken and treated for hernia. It simu-
-lates hernia in many respects. Like hernia,
it increases in an erect and decreases in a re-
-cumbent position— it begins in the cours-
of the spermatic cord, and dilates slight-
-ly on coughing— Like hernia too, it fills
from the abdomen when it has been empt-
-ied. It is distinguished from hernia by the
form of the tumour— In recent scrotal
hernia, the tumour is nearly of uniform
size; while varicocele increases rather
abruptly from above downwards— It is dis-
-tinguished from hernia by the irregulari-
-ty of its surface, the feeling of hardness,
convolutes, and knotted cords, resembling

a bag of worms, the distinct feeling of two or more cords of the size of a quill which can be distinct-ly traced to the external abdominal ring- It differs also by the absence of a gurgling noise, and the non interruption of the bowels. The clearest diagnostic mark is, when the tumour has been reduced, which may be accomplished by placing the patient in a recumbent position and raising the scro-tum, the fact that in varicocele it will be refilled if pressure be made upon the ex-ternal ring, on account of a free return of the blood through the veins being prevent-ed, though the same pressure would ef-fectually prevent a hernia from again descending.

Treatment= Two kinds of treatment have been practised, the palliative and curative- There are two kinds of palliative treatment, both having the same object in view= the support of the part= One consists of various lotions, as cold water, alum with alcohol and water,

and other similar preparations, the object of which is to contract & corrugate the scrotum. The other mode is to afford mechanical support by means of straps & bandages.

The truss, variously modified in its application, has been very highly recommended by the inventors of that instrument. The pressure, however, made by its application over the pubes causes pain and tenderness of the part, and prevents a return of the blood through the veins, thereby aggravating the complaint in a tenfold degree.

Suspensory bandages of various forms have been used. If they can be so applied that the parts can be kept cool and unirritated, they will afford relief. They should be made of light net-work, with the meshes sufficiently large to afford as little obstruction as possible to the air, and of a form to apply equally to every part of the scrotum. It is almost as necessary that the parts should be kept cool as supported.

In some cases a ring made of some soft metal, such that it may be applied without causing irritation, has been used. And from the account given of it, it would seem to be equally efficacious with the bandage, and less inconvenience attending its use. The mode of application is the following. The patient being placed on his back and the tumour gently pressed up to the abdominal ring, the scrotum of the side affected is drawn through the metalic ring, the sides of which are then pressed together sufficiently firmly to hold the scrotum and in this way making a very good support for its contents.

There are occasionally cases when it is necessary that something more should be done to obtain relief both of the local and mental suffering than is commonly advised. When there is a constant pain and sensation of weight in the scrotum and loins, with pain and weakness in the back, with epigastric uneasiness and

irritation and increased pain when riding or walking, the patient is willing to submit to any operation which the surgeon may advise to obtain relief. The complaint is no longer a simple inconvenience but a constant annoyance which renders life miserable.

Several operations have been performed for the purpose of accomplishing a perfect cure. It is my intention in this essay to give only a cursory view of each.

For the curative treatment four different operations have been proposed. First. By placing a ligature upon the spermatic arteries. Second. Upon the veins. Third. By removing a portion of the scrotum, thereby diminishing its cavity, and by this means giving support to the tumour. Fourth. Extirpation of the testicle. The last operation has been resorted to only in some extreme cases, and when no other treatment

would probably afford relief. Speaking of a case of this description, Sir Astley Cooper makes this remark "Although the foregoing is a most severe case and I have seldom met with so aggravated a degree, yet I have seen in the course of my practice many persons suffer so severely in body and mind from this complaint they would readily submit to any operation which was not attended with danger to life to obtain relief.

The operation of ligaturing the spermatic arteries has been performed by several surgeons, and they are said to have had entire success in curing the complaint without impairing the integrity of the testicle in the least.

Placing a ligature around the spermatic veins has also been practised by many surgeons, and as has been said with success. But from the fatal consequences which have sometimes

attended the application of a ligature to veins in other parts of the body, the operation, to say the least, is attended with danger.

The practice pursued by Sir Astley Cooper in painful varicocele, when an operation was necessary to relieve the patient from suffering, is to make a permanent and perfect bandage of the scrotum itself. This is accomplished by removing a portion of the scrotum of the affected side of sufficient size that the remainder when it is healed will embrace the tumour with considerable tightness. The operation is attended with but little pain and no danger. The varicocele, however, is not always entirely cured, but is relieved from the distressing sensations of pain.

There remains but one more operation to be mentioned, which was first introduced to the notice of the profession by

M. Reynaud. This consists in separating the vas deferens, which may be readily distinguished by its firmness from the spermatic vessels; passing the veins to the side of the scrotum to include as little as possible of the skin, and then carrying through a needle with a ligature which will include the spermatic vessels and a small portion of the scrotum. This may be tied loosely over a cylinder made of cotton cloth placed on each side and tightened from time to time when necessary, until the vessels have been divided. The remainder of the scrotum, may then be separated by a knife and allowed to heal. The whole time required in a cure is about twenty five days; during which time the patient must be confined to his bed. Two cases were published by M. Reynaud, in both of

which he was successful in accomplishing a perfect cure.

Nelson A. Baldwin.
Newark N. Jer.

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